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# The Australasian Journal of Pharmacy

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THE OFFICIAL FEDERAL JOURNAL of the ASSOCIATED PHARMACEUTICAL ORGANISATIONS of AUSTRALIA

OFFICIAL JOURNAL OF THE PHARMACEUTICAL SOCIETY OF NEW ZEALAND

New Series: Vol. 36—No. 429

September 30, 1955

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# OFFICIAL ANNOUNCEMENTS

## PHARMACY BOARD OF VICTORIA

### EXAMINATION COMMENCING DATES 1955

Preliminary Examination—November 16.

Intermediate Examination—November 7.

Final Examination—November 15.

Entries for the Preliminary and Intermediate Examinations close fourteen days, and for the Final Examination twenty-one days, before the date of commencement of the Examination.

Full details obtainable from the office of the Board.

F. C. KENT, Registrar.

360 Swanston Street,  
Melbourne.

## PHARMACY BOARD OF NEW SOUTH WALES

The next Qualifying Examination will  
be held in February, 1956.

Watch this column for further advice.

P. E. COSGRAVE,  
Registrar, Pharmacy Board of N.S.W.  
52 Bridge Street,  
SYDNEY.

## PHARMACEUTICAL DEFENCE LIMITED ANNUAL ELECTION

It is hereby notified that an ELECTION will be held to fill TWO ORDINARY VACANCIES on the Board of Directors of Pharmaceutical Defence Limited and to elect AUDITORS on the 23rd day of November, 1955. The Directors who retire by rotation are Ian Hammond Barnes and Ernest Arthur Orford Moore. Monday, the 31st day of October, 1955, has been appointed as the day of nomination. Nomination papers of candidates for the offices of Director or Auditor must be lodged or delivered by post with the Secretary at the registered office of the Company, 4th Floor, "Guild House," 24-26 Saint Francis Street, Melbourne, before 4 o'clock in the afternoon of the day fixed for nomination. In the event of more candidates being nominated than there are vacancies, a POLL will be taken on the 23rd day of November, 1955.

V. G. MORIESON, Returning Officer,  
Melbourne, September 30, 1955.

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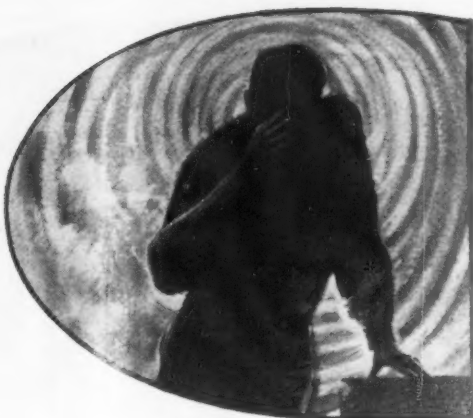
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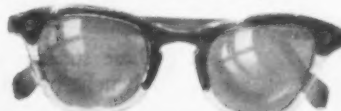
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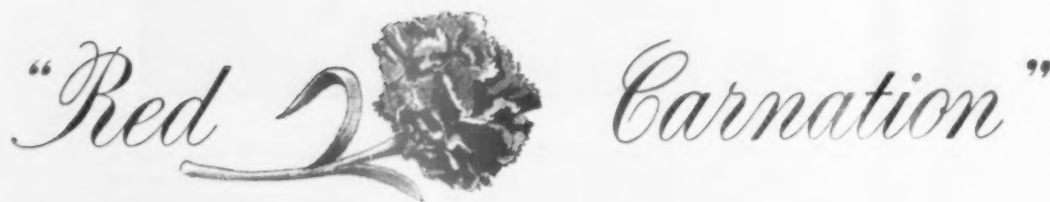
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# Editorial

New Series: Vol. 36—No. 429

Old Series: Vol. LXX—No. 837

September 30, 1955

## Substitution in Dispensing

**I**N recent months there has been a spate of articles on substitution in dispensing, in the pharmaceutical journals of many countries.

Some of the writers attempt to condone the practice in some circumstances; others to condemn it roundly; none have emphasized that the reason or motive behind the substitution may be accepted as the criterion in determining culpability in particular instances.

Substitution in all cases means supplying in pursuance of a prescription (a) a brand of drug or substances other than the brand ordered by the prescriber; (b) supplying a drug or substance different from that prescribed.

There is no question that this is illegal.

Acts relating to the sale of goods in the various States contain a provision that there is an implied condition that when there is a contract for the sale of goods by description, the goods shall correspond with the description. In dispensing prescriptions there is a contract of sale of goods by description, and if substitution takes place in regard to one or more of the components of that prescription which are named by the prescriber, the requirement of the law is broken.

In common law the principle is well established that the validity of a contract depends upon the seller supplying goods of the nature and description demanded by the purchaser.

Similarly in some of the Regulations made under the Pharmacy Acts there are clauses stipulating that the drug or medicine prescribed in any prescription shall be used in dispensing or compounding it, and no other drug or substance shall be submitted in its place, except with the consent of the medical practitioner whose prescription or order is being dispensed or compounded.

Substitution, therefore, clearly is illegal.

Not only is it illegal—it is wrong commercially.

If a purchaser asks for or demands a product of a particular make, whether that product is protected by a registered trade mark or not, and a substance of another manufacturer is supplied in its place under conditions which suggest that the product supplied is that of the manufacturer whose goods were demanded, the seller who has substituted may find himself facing a civil action for "passing off" and may be mulcted in damages.

Substitution may be prompted by dishonest motives as, for example, the supplying for gain of an article cheaper than the one demanded and charging the price of the higher priced article. In these circumstances the action is wicked and immoral. This kind of substitution can be considered as criminally fraudulent and involve the perpetrator in serious penalties.

Carelessness, recklessness, parsimony, reluctance to carry stocks of a reasonable range of brands, or sheer indifference to professional responsibility and the needs of the public, may be reasons advanced for substitution of one brand for another, but none of these are acceptable reasons ethically or legally.

In the dispensing of medical prescriptions it must be generally assumed by the pharmaceutical chemist that prescribers have good and sufficient reasons for nominating a particular product. It is not the function of the dispenser to challenge, much less to take it into his own hands to change, that authority. Like most other documents in commerce and law a prescription can be varied in any essential particular, only by the originator of it.

Pharmaceutical leaders in U.S.A. have been very outspoken on this subject.

The Montana State Pharmaceutical Association, according to a report in the *Retail Chemist*, passed a resolution condemning the practice as being detrimental to the health of the people and to the profession of pharmacy, and the President of the New Jersey Association spoke of substitution as "unfair, unprofessional, prejudicial, unrealistic and narrow."

Dr. Klumpp, the President of the Pharmaceutical Council, drew attention to the wider application of the substitution principle, and warned chemists that to wipe out the brand name structure by substituting generic (official) names, is to wipe out the great protection afforded by fair trade against unfair competition.

However we may feel about the multiplicity of brand names for a single drug and the disadvantages of this feature of modern drug merchandising insofar as retail pharmacy is concerned, that cannot alter the fact that substitution without good cause is wrong.

There are, on the other hand, circumstances in which substitution becomes imperative.

The pharmaceutical chemist faced with the choice of

committing a technical breach of the law or doing some act which, under more normal circumstances may be regarded as contrary to his accepted code of ethics, or as an alternative deny treatment of some serious condition because of his inability at the time to supply a brand of drug specified by the doctor, may have to substitute. There are occasions when the demands of the moral law supersede the demands of common, or statute law. The taking of human life in extreme conditions may for example be put forward as justifiable homicide.

In making a decision the chemist must use discretion, and in seeking a line of action must satisfy his own conscience.

Should substitution be necessary to avoid suffering in a particular case of this kind, the obligation of the chemist is clear. He must first endeavour to secure the acquiescence of the prescriber and, secondly, he must make clear by suitable notation on the prescription so that there shall be no doubt in the minds of those who may subsequently receive the prescription as to what has been supplied.

Pharmaceutical chemists are well aware, of course, of the legalisation of substitution to meet certain conditions. There are examples even in the British Pharmacopoeia and in the Regulations and Standards for Foods and Drugs, in most of the Australian States. We find a provision such as that in Regulation 76 in the Victorian Regulations for Foods and Drugs which states that—in any preparation intended solely for external use, where olive oil or Arachis oil is specified in the B.P., A.P.F. or B.P.C., cotton seed oil or maize oil

may be used in lieu thereof, except where otherwise provided by the Regulations.

That the question is exercising the minds of American pharmacists is indicated by the fact that the subject was one of those listed prominently in the Agenda of the Miami Beach 1955 Convention of the American Pharmaceutical Association. At this Convention it was agreed by all pharmaceutical authorities that generic names mean the common, chemical or unregistered names of drugs, or the names recognised by the U.S. Pharmacopoeia, the National Formulary, or the Homoeopathic Pharmacopoeia of the United States, or the names adopted by the Council on Pharmacy and Chemistry of the American Medical Association, and whereas the use of generic names is therefore in keeping with the highest ethical standards of the medical and pharmaceutical professions, it is resolved that the American Pharmaceutical Association, as such, believes in and encourages the use of generic names for general drug products.

The resolution relating to substitution was "that whereas the best interests of the profession of pharmacy are served by an uncompromising policy of strict adherence to the highest ethical standards, and whereas the dispensing of drugs precisely in accordance with the physician's prescription, having due regard for the fundamentals of the practice of pharmacy, is and always has been a basic tenet of the professional pharmacist's code of ethics, it is resolved that the American Pharmaceutical Association condemn as unethical the dispensing of a pharmaceutical preparation or brand thereof other than that ordered or prescribed, unless such act is specifically authorised by the prescriber."

## THE MONTH

### News of Pharmaceutical Events at Home and Abroad

#### *A.N.Z.A.A.S. Meeting*

##### **Buffet Dinner**

An opportunity for members in Victoria to meet Interstate delegates attending the A.N.Z.A.A.S. Conference, Section "O" (Pharmaceutical Science), was provided by the Pharmaceutical Society of Victoria, which arranged a buffet dinner at the Union House, University of Melbourne, on the evening of Saturday, August 20.

In a total attendance of about 200 there was a good representation of members of the Society, and they welcomed the opportunity of meeting and mingling with the Interstate visitors.

In the unavoidable absence of Mr. I. J. Thompson,

President of the Pharmaceutical Society of Victoria, because of illness, Mr. Eric Scott (Vice-President) extended a welcome to the Interstate visitors in particular, and expressed the hope that this function would add to their happy recollections of the Melbourne A.N.Z.A.A.S. meeting.

Later in the evening Mr. J. S. Peel, of Napier, New Zealand, a Vice-President of Section "O," acknowledged the hospitality of the Pharmaceutical Society of Victoria, and expressed the thanks of the visitors for the kindly thought behind the arranging of this function. He remarked that the visitors had been met with hospitality on all sides, and some were finding it difficult to cope with all that was offering. He concluded by extending an invitation to all present to

attend the next meeting of A.N.Z.A.A.S., which would be held at Dunedin, N.Z., in 1957.

The evening was rounded off with a series of delightful musical numbers rendered by Joan Arnold, soprano, and Cecil Parkes and his Strad Trio.

The gathering dispersed shortly after 10 p.m.

### **Retail Trade—Turnovers Still Increase**

The census of retail establishments taken by the Commonwealth Bureau of Statistics for the year ended June 30, 1953, shows further steady increase in retail sales over preceding years.

The census covers the trading activities of establishments which normally sell goods at retail to the general public from shops, rooms, kiosks and yards.

The figures shown for "chemists' goods" relate to the types of goods usually sold in chemists' shops, but the aggregate figure includes sales from pharmacies and all other retail establishments at which that class of goods is sold. There is no split up into medicines, cosmetics, photographic goods, etc.

In the comparative figures given in the report, figures for the years 1940 and 1949 and 1952 and 1953 were obtained from censuses taken in respect of those years, whereas figures for the other years shown are estimates based on sample surveys, and these have been revised since previous publication. Total retail sales for the Commonwealth for the years reviewed are shown as follows:—

	£ million
Year ended June 30, 1949	1128.3
Year ended June 30, 1950	1378.7
Year ended June 30, 1951	1752.8
Year ended June 30, 1952	2048.9
Year ended June 30, 1953	2119.4
Year ended June 30, 1954	2332.9

Retail turnover in chemists' goods for the year 1952-1953 for States is shown as follows:—

	£'000
New South Wales	21,278
Victoria	14,374
Queensland	6,442
South Australia	4,068
Western Australia	3,247
Tasmania	1,458
Northern Territory	35
Australian Capital Territory	177
Australia	51,059

### **Standardisation of Hospital Formularies**

#### **Medical Practitioner Urges Adoption of A.P.F. as Basis**

A very sound suggestion that new effort should be made to achieve some uniformity of similar formularies in Australia is made in a letter by Dr. Ronald Lowe, Ophthalmic Surgeon, Victorian Eye and Ear Hospital, published in *The Medical Journal of Australia*, September 24, 1955.

In this communication Dr. Lowe states that the recently published A.P.F. represents an immense advance upon previous editions. He points out that the formulae have been modernised and provide the basic requirements for medical practice. Dr. Lowe draws attention to the fact that most teaching hospitals in the past compiled their own formularies, or hospital pharmacopoeias, without any particular attempt at standardisation, and expresses the opinion that the minor differences existing between them have been a nuisance. He claims it would reduce confusion for prescribers, pharmaceutical chemists and patients if formularies were standardised. Dr. Lowe states that the Victorian Eye and Ear Hospital has now adopted the Australian Pharmaceutical Formulary as its basic formulary, but will issue a small supplement containing additional formulae required for its special treatments. He expresses the hope that other hospitals will co-operate to achieve the desired standardisation.

### **Restraint in Spending Advocated**

In the Monthly Summary of Australian conditions published by the National Bank of Australasia Ltd. it is indicated that Government and other public expenditure in 1955-56 is planned to provide for a rise of something like £100 million, and that wage and salary incomes may be slightly expansionary as regards expenditure.

Notwithstanding this, it is claimed that some restraint in spending by all sections of the community is essential primarily because of the overseas trade position on the outlook. The conclusion drawn is that the more this restraint is the voluntary result of the clear understanding of our difficulties, the better it will be for everybody, and the freer will the community be from any Government intervention and restriction. The present pace being attempted in respect of national development, immigration and industrial growth, it is stated, cannot be sustained, but must be slowed up for a time, and a very determined effort made to expand export production, at the same time planning overseas markets for it.

### **Pharmaceutical Association—Melbourne Meeting**

The Executive of the Pharmaceutical Association has announced that the next meeting will be held in Melbourne from May 22-30, 1956.

Following the pattern set at recent Conferences, the inaugural session will be held at night, and provision will be made in the programme also for evening meetings at which subjects of general interest will be discussed, so that Victorian members, who otherwise would not be able to participate, may be present. It is expected that there will be considerable attendance of representatives from all States. Members in all States may obtain further information from the office of their Pharmaceutical Society or State Branch of the Guild.

# SCIENCE SECTION



EDITED BY A. T. S. SISSONS, B.Sc. F.P.S.

## ARTICLES

- Living Molecules
- Heavy Metals Functional in Living Cells
- A Review of Water-in-Oil Emulsion Bases
- The Sodium Sulphacetamide-Zinc Sulphate Incompatibility
- The Formation of Essential Oils in Plants
- Some Problems in Aseptic Filling of Injections
- Acetylcholine
- Experience with Some Ophthalmic Vehicles
- Bacterial Pyrogens

## A.N.Z.A.A.S. Melbourne Meeting, 1955

### Presidential Address — Section "I"

R. J. Best, Waite Research Institute, Adelaide (Abstract)

#### "LIVING MOLECULES: A SURVEY OF RECENT ADVANCES IN OUR UNDERSTANDING OF THE NATURE OF VIRUSES"

Because the activities of viruses influence food production and the lives of man and other animals, they have received a fair amount of attention; the use of myxoma virus against rabbits, and the development of a vaccine to protect man against poliomyelitis, have attracted public notice to this group of disease-producing agents. The successful outcome of attempts to control or to use viruses, however, must rest on the knowledge obtained by fundamental research into their nature and their behaviour in their host. This address will concentrate on a survey of what are believed to be the more outstanding results of these basic investigations.

The mental picture we had of a virus about 1933 was of a sub-microscopic living organism, perhaps like a miniature bacterium! About this time chemists applied their ideas and techniques to a study of plant viruses, and soon had isolated a number of them as nucleo-proteins—complex molecules with molecular weights of the order of millions. Different virus types were found to differ in their content of nucleic acid, and different strains of one virus type differed in the relative proportions of amino-acids. Current investigation suggests that there is considerable scope for variation in both the protein and nucleic acid moieties of the molecule, and that both may be involved in determining specificity. Those animal and bacterial viruses which have been sufficiently investigated seem to be similar to plant viruses in respect to chemical composition. Some of the larger

ones seem to be more complex, but the extent to which portions of the host cell remain attached to the essential minimal unit, or how much is dispensable, is not known.

Attention was next directed to a study of the interaction between virus and host. The leading questions have become: to what extent does the host participate in the reactions into which the virus enters, and how do viruses develop and multiply in their hosts? Investigators working with bacterial viruses here took the lead, and it now seems clear that these viruses have a "life history." When outside the host a bacterial virus consists of nucleoprotein only, but has a fairly well-defined structure, consisting of a "head" of nucleic acid



From left: Mr. J. S. Peel (N.Z.), Prof. R. H. Thorp (Sydney), Mr. S. E. Wright (Sydney).





Mr. G. G. Jewkes (Canberra) at left; Mr. and Mrs. A. T. S. Sissons (Melb.).



"A.P.F." !!  
Dr. B. L. Stanton (left) and Mr. N. C. Manning.



From left: Mrs. S. E. Wright (Sydney); Miss Braithwaite; Mrs. Gobell; Mrs. Sissons; Miss J. Harrison (Sydney).



From left: Mr. A. I. Stabel (Sydney), Mr. R. G. Smith (Melb.), Mr. F. C. Kent (Melb.).



embedded in a protein envelope, and a proteinaceous "tail." The particle is first adsorbed to the surface of a susceptible bacterial cell; the nucleic acid (and possibly some of the protein) enters the cell while the protein "shell" remains outside. Inside the cell there follows a replication of phage-specific material, including genetic units, but no infective particles can be found at this stage; then follows a stage when the component parts, synthesised in the preceding stage, are assembled into whole infective virus particles. Finally, the host cell is disrupted, and infective phage particles are liberated in a form capable of going through the same cycle. Somewhat similar processes have been demonstrated for some animal and plant viruses, although there may be important differences.

Of extreme importance is the finding that when different strains of one virus type infect the same cell they give rise to new strains or "recombinants." This process, first discovered in bacteriophages, has also been demonstrated for influenza virus and tomato spotted wilt virus. It would seem that at some stage during the replication process an exchange of genetic material takes place between particles of different strains, and that this material is part of the nucleo-protein core of the virus. It seems likely that the genetic memory of the virus is in its nucleic acid, and that the protein portion is essential for infection and invasion, and that the nucleic acid, alone or accompanied by a little protein, enters the genetic mechanism of the invaded cell and causes existing enzymes to direct the synthesis of more of itself. The level at which the genetic mechanism is entered is not known, and may be different for different kinds of virus.

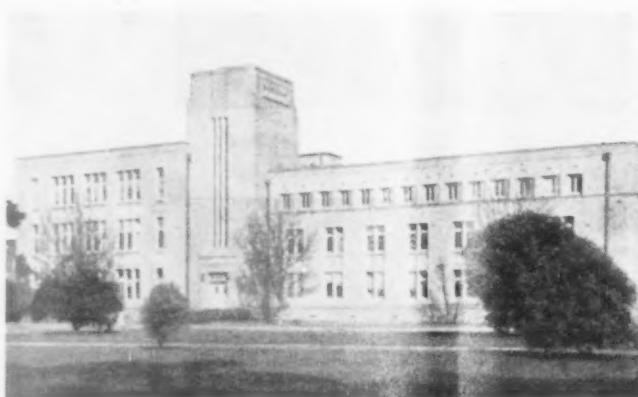
There is now evidence for a helical structure for nucleic acid and nucleo-proteins and for at least one virus. How do the units responsible for hereditary characters fit into this structure?

Although it is likely that the difference between living and "non-living" things is purely hypothetical and has no scientific significance, nevertheless it may be useful to be able to distinguish between systems that are self-perpetuating and those that are not. Whatever is basic to that difference could then be called the essence of life. In this sense it now seems that this basic property is the power to replicate automatically the pattern specific to nucleo-proteins.



"ONE AT ELEVEN"

From left: Mr. A. A. Russell (Adelaide); Mr. H. A. Braithwaite (Melb.); Mr. K. D. Johnson (Adelaide); Mrs. Nye (Melb.).



Chemistry School—University of Melbourne.  
Meeting Place of Section B—Chemistry.

## Presidential Address — Section "N"

### "HEAVY METALS FUNCTIONAL IN LIVING CELLS"

H. R. Marston, Chief of Division of Biochemistry and General Nutrition, C.S.I.R.O., Adelaide

(Abstract)

Until recently, the small traces of cobalt observed to be present in the tissues of animals and plants and in the cells of micro-organisms were considered to be adventitious rather than functional components, for, apart from a hint provided by the observations that some of the fungi need a modicum of cobalt in their culture medium, there was no evidence that this ele-

ment played any essential biological role. The recognition that a shortage of cobalt in the fodder is the prime cause of debilitating maladies, enzootic among ruminants depastured on certain types of terrain, fixed attention on the function of cobalt in metabolism. All attempts, however, to show that cobalt *per se* is of nutritional importance to animals other than ruminants have failed.

The discovery that the anti-pernicious anaemia factor isolated from mammalian liver contained close to 4 per cent. of cobalt clarified the issue, and stimulated a search for the physiological function of this substance. Its designation, Vitamin B<sub>12</sub>, has been amply justified, and there is already enough evidence to suggest that although this cobalt containing complex is

an essential accessory food factor for animals, it originates in nature only as a metabolic product of certain micro-organisms; it is probably not present in the higher plants upon which animals depend ultimately for sustenance. The situation thus created is unique in our knowledge, and suggests an early symbiotic relationship that has not been lost in the course of evolution.

The ruminant apparently requires a greater supply of Vitamin B<sub>12</sub> than other animals—possibly to sustain the metabolic channels necessary to deal with the simple fatty acids which, as products of bacterial dissimilation of carbohydrates in the rumen, provide the animal's main source of energy.

In normal circumstances, when the cobalt concentration of the fodder exceeds 0.1 µg of cobalt per g, the microflora of the paunch produce approximately 1 mg. of Vitamin B<sub>12</sub> per day, together with considerably greater amounts of closely analogous complexes which differ from the vitamin itself, mainly in the nature of the nucleotide attached to the cobalt-containing pseudoporphyrin moiety that comprises the main part of the molecule. Though capable of meeting the requirements of certain micro-organisms, these analogues are quite devoid of physiological activity in animal tissues. Vita-

min B<sub>12</sub> produced in the rumen is very poorly absorbed from the intestinal tract—the overall efficiency of absorption of Vitamin B<sub>12</sub> provided *per os* is less than 3 per cent. That which is absorbed and which is in excess of immediate requirements accumulates in the tissues, mainly in the liver. Very close to 6µg of Vitamin B<sub>12</sub> is lost by a mature sheep each day in the normal course of its metabolism.

Reduction of the cobalt concentration in the fodder to less than 0.03 µg/g effects a very obvious change in the nature of the rumen flora and, although the overall "digestibility" of the ration remains unimpaired, the production of Vitamin B<sub>12</sub> falls within a few days to a tenth or less of that which normally prevails. The amount absorbed is then insufficient to make good the losses, and so the stores in the liver become depleted until they can no longer provide the full physiological requirements. The syndrome of Vitamin B<sub>12</sub> deficiency then appears and progresses.

This syndrome and the metabolic defects which give rise to it were discussed in the light of recent unpublished experiments, and the general conclusions were extended to illuminate the physiology and biochemistry of accessory food factor deficiencies.

## Section "O" — Pharmaceutical Science Papers (Continued)

### A REVIEW OF WATER-IN-OIL EMULSION BASES

John Ashley,

Department of Pharmacy, Sydney University

During recent years research into ointment base formulation has been concentrated mainly on oil-in-water emulsion bases in preference to water-in-oil. This has apparently occurred because of reports of fast medicament release from this type of base and the many new oil-in-water emulsions which have been evolved. Perhaps this has led to the neglect of water-in-oil bases, which have many desirable properties.

In a review by Davies<sup>1</sup> of a survey carried out by Lane and Blank<sup>2</sup> it is stated that with the possible exception of areas rich in sweat glands, normal skin is covered by a greasy layer of waxes and cholesterol esters. The vehicle of an ointment must pass this before cutaneous penetration is obtained, although it can enter by way of the sweat or sebaceous glands and hair follicles. Therefore it appears that, except in conditions where serum exudation is very great, the skin is more readily reached by oily substances. This is true of both water-in-oil and oil-in-water bases, since when an oil-in-water base is applied, water loss by evaporation occurs, leaving an oil miscible film with hydrophilic properties on the skin. Again, Harry<sup>3</sup> has demonstrated that penetration takes place mainly through the hair shaft apertures and sebaceous glands. Then it becomes doubtful whether there is much difference between the two types of base in their ability to penetrate the skin. Also, consideration must be given to the fact that the type of lipid substances employed has an effect on penetration (e.g., paraffins show lower penetration than vegetable oils, which in turn are inferior in penetration to animal lipids).

It seems fairly conclusive that medicament release from the water-in-oil base is either more prolonged or occurs to a lesser extent than release from oil-in-water bases. However, many conflicting results have been obtained, and it must be remembered that the usual method of testing release of medicament is to produce an emulsion of a water soluble medicament and test its diffusion from the base into an aqueous culture medium. These methods hardly approach physiological conditions and make no allowances for oil soluble medica-

ments. Also, "in vivo" methods have not been found to be very successful,<sup>4</sup> and there is a need for a really effective test.

The water-in-oil bases also have many properties peculiar to their type:

- (1) They have foremost an emollient effect.
- (2) In contrast to oil-in-water bases they are, in the majority of cases, free from detergency.
- (3) Evaporation from an oil-in-water base leads to increased medicament concentration. This may not be important, as the amount of medicament applied may vary tremendously, and it is obvious that wide limits are allowed.
- (4) If, as stated above, the medicament release is prolonged, then this type of base becomes a means of maintaining a steady flow of medicament over a period of time.
- (5) An oil miscible base has a protective effect, and is not easily removed by washing.
- (6) It has been said by Ingram<sup>5</sup> that "local applications are rarely to be employed as therapeutic weapons; seldom is it necessary to attack. The purpose of local treatment is commonly to support and protect the skin to effect its own recovery; to improve the conditions under which it is functioning." Water-in-oil emulsion bases are very suited to this purpose.

The British Pharmacopoeia general purpose water-in-oil absorption base is Ointment of Wool Alcohol and its hydrated equivalent is Hydrous Ointment. The only other water-in-oil base is Cream of Zinc Oxide, which is a rather specialised product. Hydrous Ointment became official in the 6th Addendum to the B.P., 1932. The base it replaced was Ung. Aquosum, B.P., 1932, which was a beeswax-borax emulsion containing only 24% water as compared with 50% in the present base. There was no anhydrous absorption base, and consequently the new base was a definite advance.

It was found by Firth, 1943,<sup>6</sup> that separation of the aqueous phase occurred with the formula for Hydrous Ointment in the Pharmacopoeia, and he suggested removal of some hard paraffin to prevent formation of a lumpy product. Later, in 1945,<sup>7</sup> he found that, although a satisfactory product could be produced by ordinary methods of emulsification, two classes of ointment—shiny or matt—resulted from varying the proportions and types of paraffins in the base. The British Pharma-

copoeia states that the proportions of paraffins in the base can be altered to produce a base with suitable properties. Therefore, from Firth's data it appears that this method would allow undesirable variations in appearance and stability. The obvious instability of certain products is emphasised by the British Pharmacopoeial statement that any aqueous phase separating on standing can be reincorporated by stirring. In 1945 Michaels<sup>4</sup> evolved a modification of the British Pharmacopoeia formula, which he claimed could be prepared easily and satisfactorily by normal methods.

Wool Alcohol itself is open to criticism because of its instability to storage and heating. Muirhead et al<sup>5</sup> found that on storage Wool Alcohol becomes oxidised on the surface, producing an increase in acid value from 3 to 16 (B.P. limit is 2), when samples were spread out thinly and exposed to atmospheric oxidation at room temperatures for 30 weeks. Oxygenation of melted samples also produced decreases in acetyl value and cholesterol content. However, tests on the interfacial tension reducing power showed no decrease in emulsifying properties. Most samples of wool alcohols, when used in the preparation of Ointment of Wool Alcohols, are not completely soluble, and brown flecks of undissolved solids appear in the product, requiring removal by straining, regardless of how carefully the wool alcohol is heated. Again, if wool alcohol is heated above about 65° C., it is found that it becomes insoluble, depositing a sticky plastic mass on the bottom of the vessel in which it is being heated. These changes are apparently due to the oxidation products already mentioned or, in the second instance at least, to some type of polymerisation. It is strange that the B.P. makes no statement concerning overheating during preparation of either ointment. The directions for the preparation of Hydrous Ointment are misleading in that they state that the Distilled Water is to be added to the melted base. Obviously if the water is not heated to the same temperature as the melted base any hard paraffin in the base will be precipitated.

Hydrous Ointment also shows several incompatibilities which limit its use. The following table shows compatibilities with some common medicaments.

Medicament	Concn. (%)	Compatibility
Phenol	> 1	Immediate separation
Ichthammol	1	Separation in 2 weeks
	5	Immediate separation
Soln. of Coal Tar	10	Immediate separation
Resorcin	5	Separation in 2 weeks
	10	Separation in 2 weeks
Salicylic Acid	10	No separation in 4 weeks
Benzoic Acid	10	No separation in 4 weeks
Crude Coal Tar	15	No separation in 4 weeks
Ammoniated Mercury	10	No separation in 4 weeks

Hadgraft<sup>10</sup> also noted additional incompatibilities with mercurous chloride equivalent to B.P. 1932 strength (separated in three days), Solution of Coal Tar (4%) (separated in four days) and Sublimed Sulphur 10%. The difference in Solution of Coal Tar results may be due to difference in paraffins chosen. Castle and Wright<sup>11</sup> found that substances appreciably soluble in both phases caused separation. They found that this could be overcome by the addition of cetyl alcohol 1% or 2%, depending upon the medicament used.

Finally, it is the opinion of many dermatologists that wool fat and its close derivatives such as wool alcohols, have an irritant or sensitising effect. For this reason wool fat has been deleted from the official bases in the United States Pharmacopoeia.

In the search for a suitable substitute for the B.P. bases, the U.S.P. bases corresponding to the B.P. bases were examined. The U.S.P. includes three water-in-oil bases. There are two hydrous bases—Rose Water Ointment and Petrolatum Rose Water Ointment—both of which are borax-beeswax bases containing only 14%

water, as compared with 50% in the B.P. base. Therefore the investigation was centred on Hydrophilic Petrolatum, which is an anhydrous absorption base containing 3% cholesterol, stabilised by white beeswax in a paraffin base. This base contains more cholesterol than Ointment of Wool Alcohols (approx. 1.7%). However, the emulsifying properties of Wool Alcohols as shown by Tiedt and Truter<sup>12</sup> are due not only to cholesterol but also to total free alcohols stabilised mainly by the alpha and beta glycols present. Therefore it could not be predicted whether this base would equal the B.P. product.

Halpern<sup>13</sup> gives the water number of Hydrophilic Petrolatum as 170, so that it should, like the B.P. base, absorb its own weight of water with little difficulty. It was found that although a stable emulsion could be formed by mixing the melted base with water at the same temperature, an elegant product could not be prepared by trituration in the cold, as can be done with Hydrous Ointment, B.P. It was also found to be less stable than the B.P. base with the same medicaments.

It has been found in several instances that oil-in-water emulsions can be stabilised by small quantities of water-in-oil emulgents, and although the mechanisms of the two emulsion types differ<sup>14</sup> it was thought that a stabilising effect may be produced in a similar manner with water-in-oil bases. Accordingly, both bases were modified by adding Emulsifying Wax, B.P., and Cetomacrogol Emulsifying Wax, B.P.C., in proportions equivalent to ½% and 1% in Hydrous Ointment, B.P., and Hydrophilic Petrolatum with an equal weight of water incorporated. It was found that these additions had no effect on the compatibilities of the two bases, and that, indeed, the U.S.P. base was not stable with ½% Emulsifying Wax or 1% Cetomacrogol Emulsifying Wax added.

Quite an amount of work has been done by American workers<sup>15-17</sup> on the formation of a water-in-oil emulsion base with cholesterol stabilised by cholesterol esters as the emulgent. This increased stability is due to increased rigidity of the surface film brought about by hydrogen bonding and molecular association at the interface.<sup>18</sup> A fairly satisfactory base was prepared by Johnston and Lee<sup>15</sup> containing cholesterol 3%, cholesterol stearate 3% and wool fat 25% in white soft paraffin. The wool fat had to be included to prevent separation when rubbed on to the skin. This base had a water number of 300, but it was incompatible with volatile substances and alcohols. With high proportions of water, it tended to separate badly on storage.

The synthetic non-ionic emulgents of the sorbitan ester type were not investigated at this stage, because they have not yet been officially recognised. Also, these emulgents have been reported to possess cocarcinogenic properties,<sup>19</sup> and this may affect their use, especially with substances like crude coal tar. The stability of emulsions prepared with these emulgents is well known.<sup>19</sup>

On consideration of water-in-oil beeswax-borax bases, it is seen that these are water-in-oil emulsions apparently stabilised by the presence of a small quantity of the sodium soaps of a mixture of long chain fatty acids. It has been found by Bushby<sup>20</sup> that such emulsions, containing 25% water, commence as oil-in-water and then change type on standing. This change was slowed by increased borax concentration, and still took place using equivalent concentrations of sodium stearate and paraffins. Apparently this reversal is caused by the large excess of oily phase and the intermediate hydrophile-lipophile balance of the emulgent.

It was decided to study the effect produced by using a small quantity of Emulsifying Wax instead of the extemporaneously prepared sodium soap. After many experiments the following base was evolved:—

Beeswax	15
Emulsifying Wax	2.5 (= 0.25% Sod. Lauryl Sulph.)
Liquid Paraffin	42.5
Water	40

This was a stable base of elegant appearance, which was compatible with phenol 2% and ichthammol 5%. It could be prepared by either mixing the aqueous phase with the melted oily base at the same temperature or by cold trituration of the anhydrous base with the cold aqueous phase. In an attempt to produce a base with equal water content to the B.P. base, the following base was prepared:—

Beeswax	12.5
Emulsifying Wax	2.0
Liquid Paraffin	35.5
Water	50.0

This base, however, was not as satisfactory. If prepared by mixing the two heated phases, the wrong type was formed in many cases. It could, however, be prepared by cold trituration, and although the resultant product tended to slip in the mortar when freshly made, it stiffened on standing for five minutes. If the Liquid Paraffin was replaced by Soft Paraffin, it was found that the ointment was very difficult to prepare even in the cold. This base, although compatible with phenol 2%, lost much of its texture.

Therefore the anhydrous base does not show as great a capacity for absorption without reversal as does the B.P. base. However, a very comprehensive study was not made, and it is felt that further investigation is necessary.

#### Summary

- (1) A review of the use and advantages of water-in-oil bases in ointments has been made.
- (2) Some difficulties associated with the use of the B.P. bases and some alternative formulae to them have been discussed.
- (3) A preliminary study has been carried out on a beeswax emulsion base stabilised by small amounts of Emulsifying Wax, B.P.

#### Acknowledgment

The author wishes to thank Mr. S. E. Wright for suggesting this topic and for helpful advice.

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## THE SODIUM SULPHACETAMIDE-ZINC SULPHATE INCOMPATIBILITY

By Harold E. R. Barker

Sodium sulphacetamide and zinc sulphate are frequently prescribed together in eye drops. It is often found that a white precipitate results when aqueous solutions of these two substances are mixed, and in those cases, when a precipitate does not occur on mixing, it is said that the precipitate forms on autoclaving, but redissolves on cooling. Cobcroft<sup>1</sup> identified the precipitate as zinc hydroxide.

Two grades of sodium sulphacetamide are available commercially in this country: one, the B.P. salt, forming aqueous solutions with a pH about 9 and another containing about 1% of unneutralised sulphacetamide and forming aqueous solutions with a pH of about 7. It was thought that failure of the zinc hydroxide precipitate to consistently form from the zinc sulphate-sodium sulphacetamide eye drops might be due to the use of these different grades of sodium sulphacetamide by different dispensers, and it was decided to determine if the formation of the precipitate could be prevented by the use of a mixture of sulphacetamide and sodium sulphacetamide. This amounts to searching for a solution alkaline enough to keep sulphacetamide in solution, yet not sufficiently alkaline to precipitate zinc hydroxide. The sulphacetamide-sodium sulphacetamide buffer system originally suggested by Fowler<sup>2</sup> was preferred to the borate buffers of sodium sulphacetamide eye drops suggested by Howard<sup>3</sup> and by Anthony,<sup>4</sup> because it does not introduce the complication of the borate ion.

#### Materials and Methods

Sodium sulphacetamide—B.P. A 10% w/v aqueous solution had pH 9.0.

Sulphacetamide—B.P.

Zinc sulphate—Reagent grade.

Distilled water was used throughout.

Bottles used were ordinary soda glass dispensing bottles that had been thoroughly washed with synthetic detergent and rinsed with hot water and distilled water.

pH values were determined by glass electrode.

Except when otherwise specified, all temperatures were 20°.

Twenty-four solutions with the compositions shown in the table below were prepared, each in 100 ml. volume. Gentle heat was necessary to get the sulphacetamide into solution, but after solution was complete, the temperature was immediately brought back to 20°. Three 1 fl. oz. bottles were then filled with each solution. One bottle of each solution was autoclaved for 15 minutes at 120° and another bottle of each was heated in a water bath at 100° for 30 minutes. The third bottle of each was kept at 20°.

#### Results

From data published by Fowler<sup>2</sup> it was calculated that the pK<sub>a</sub> value of sulphacetamide is 5.6. From this the pH value of several mixtures of sulphacetamide and sodium sulphacetamide were calculated, and found to agree with the values actually found. It was further calculated (using 0.67% as the solubility of sulphacetamide) that sulphacetamide would just be precipitated at pH 6.3 from 30% sodium sulphacetamide solutions (i.e., 30% of a mixture of 85% sodium sulphacetamide and 15% sulphacetamide). Reference to the table shows that actually precipitation of sulphacetamide took place from 30% solution of a mixture of 95% sodium sulphacetamide and 5% sulphacetamide (corresponding to pH 6.8).



TABLE OF RESULTS

No.	Zinc sulphate %	Sodium sulphacetamide %	Sulpha-cetamide content of sodium sulphacetamide %	Precipitate	
				Zinc hydroxide	Sulpha-cetamide
1	0.5	10	0	+	—
2	0.5	10	1.25	+	—
3	0.5	10	3	+ (opalescent)	—
4	0.5	10	5	—	—
5	0.5	10	10	—	Slight
6	0.5	10	15	—	+
7	1	10	0	+	—
8	1	10	1.25	+	—
9	1	10	3	+	—
10	1	10	5	+ (opalescent)	—
11	1	10	10	—	Slight
12	1	10	15	—	+
13	0.5	30	0	+	—
14	0.5	30	1.25	+	—
15	0.5	30	3	+ (opalescent)	—
16	0.5	30	5	—	+
17	0.5	30	10	—	+
18	0.5	30	15	—	+
19	1	30	0	+	—
20	1	30	1.25	+	—
21	1	30	3	+	—
22	1	30	5	+	+
23	1	30	10	+ (opalescent)	+
24	1	30	15	—	+

Treatment in the boiling water bath and autoclaving increased the bulk of the zinc hydroxide precipitates in those solutions where they occurred, and caused them to appear in many of the solutions where they did not form at ordinary temperatures. The crystalline deposits of sulphacetamide dissolved on heating, but reappeared on cooling.

Solution No. 4 remained clear at room temperature, but dropped a precipitate on heating to 100° and on autoclaving. On cooling, the precipitate all but redissolved, a faint haze remaining in the bottle heated at 100° and a more definite opalescence in the one autoclaved. These did not redissolve after weeks at room temperature.

The pH value of solution No. 4 was 6.8. That of solution No. 3 was 7.0 and of solution No. 5 6.4. These pH values were not changed by heating at 100° or autoclaving and then cooling.

It can be seen that to avoid the precipitates the concentration of the zinc sulphate must be less than 1% and the pH has to be between about 6.5 and 6.9. It is just possible that precipitation could be avoided when the zinc sulphate concentration is 1%, but the pH value would certainly have to be kept within narrower limits, between about 6.5 and 6.7.

A satisfactory formula would be one containing 0.5% or less of zinc sulphate and 10% of a mixture of sodium sulphacetamide 96-92% and sulphacetamide 4-8%. Expressed in conventional form, a suitable formula is:—

Zinc sulphate	0.5% or less
Sulphacetamide	0.5%
Sodium sulphacetamide, B.P.	9.5%
Distilled water, to	100

The sulphacetamide can be dissolved in a solution of the sodium sulphacetamide at 40°. This mixture should then be cooled before adding the zinc sulphate solution.

The pH value of this is 6.8

#### Discussion

No explanation of the effect of heat upon the precipitation of zinc hydroxide is offered. The fact that a small amount of the precipitate fails to redissolve on cooling is possibly due to gradual conversion of the precipitate to a less soluble form—a phenomenon

known to take place on heating precipitates of other heavy metal hydroxides.

One practical conclusion to be drawn from the incomplete reversibility of the precipitation on heating is that zinc sulphate—sodium sulphacetamide eye drops should not be autoclaved or heated to 100°, as has been recommended as a routine treatment for all eye drops, and that during their preparation the minimum of heat required to dissolve the sulphacetamide should be used for the shortest time.

#### Summary

The effects of concentration of ingredients, pH and heating upon the zinc sulphate-sodium sulphacetamide incompatibility in eye drops have been examined.

A formula that avoids the incompatibility has been suggested.

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## THE FORMATION OF ESSENTIAL OILS IN PLANTS

By A. R. Penfold and J. L. Willis,  
Museum of Applied Arts and Sciences, Sydney

#### Introduction

It is over 20 years since one of us (A.R.P.) appeared before Section O as the Centenary guest of the Victorian Pharmaceutical Society at Melbourne in January, 1935. Two papers were presented, viz:—

- (a) "THE DEVELOPMENT OF OUR KNOWLEDGE CONCERNING THE ESSENTIAL OILS OF THE EUCALYPTS."
- (b) "THE PHYSIOLOGICAL FORMS OF THE EUCALYPTS AS DETERMINED BY THE CHEMICAL COMPOSITION OF THE ESSENTIAL OILS, AND THEIR INFLUENCE ON BOTANICAL NOMENCLATURE."

both of which were published in the "Australasian Journal of Pharmacy" for January 30, 1935, and February 28, 1935, respectively.

During the intervening 20 years a vast amount of information concerning the essential oil yielding flora of Australia has emanated from our Institution. Much of it pertains to the chemical composition of the various essential oils which have been distilled and examined. A noteworthy observation has been the widespread occurrence of the physiological forms in the oil yielding flora, to which reference was made in the second paper presented to you in 1935.

Attention was directed to these earlier studies, and the practicability of using them as a basis for solving the age-old problem of the origin and function of the volatile oil in plants was suggested during the course of the Fritzsche Award Address delivered by one of us (A.R.P.) before the Biological Division of the American Chemical Society of Kansas City, Missouri, on March 26, 1954.

In view of your special interest in the Australian essential oils, it seems an appropriate occasion to bring



before you the possibility of our research team making important contributions to the solution of that problem.

The organic chemists, who have dominated the essential oil field during the past half century, have concerned themselves mainly with the structural aspects of the principal constituents of Australian essential oils. However, there has been a shift lately towards the biological side, and the question of how oils are synthesised by plants and their significance in the plant's economy has attracted the attention of geneticists, biochemists and plant physiologists. Consequently, they have joined forces with the organic chemist in an attack on these two problems. We are particularly well equipped in Australia to tackle these problems successfully, as no other country has at its command such a wealth of unique plant material, and we consider this reservoir of essential oil bearing plants, and more particularly the physiological forms of species, gives us a very great advantage in the attack on this fundamental problem.

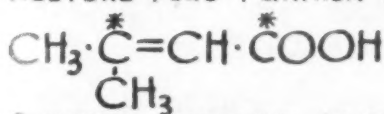
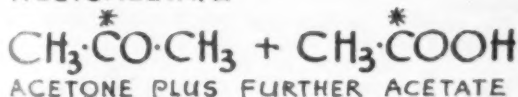
A physiological form can be defined as a plant which is indistinguishable morphologically from the species, but the oil from which differs markedly in chemical composition.

Although there has been a considerable amount of theoretical speculation concerning the formation of essential oil compounds in plants, the amount of experimental data collected has been negligible, and there has been so little agreement about the synthetic processes leading to essential oils, that the number of theories is almost equivalent to the number of theorists. For example, the following substances are among those which have been suggested as the starting point in plants for the production of terpenes, namely: Cellulose, chlorophyll, hexoses, polyhydric alcohols, acetone and acetaldehyde, isovaleraldehyde, apiose, straight chain hydrocarbons and leucine.

Now three major groups of naturally occurring compounds, the carotenoids (e.g., Vitamin A), the steroids (e.g., cholesterol), and the terpenes (e.g., citral) have a molecular architecture which indicates that they are built up from isoprene units joined head to tail, isoprene being a branched hydrocarbon with 5 carbon atoms and 2 double bonds. There are only one or two exceptions to this rule, including a compound discovered in an Australian essential oil (eremophilone). Consequently, it seems highly probable that all these substances are derived originally from one key compound, which is converted to an intermediate material with the isoprene skeleton, and these isoprene residues are then joined together in different ways to give the various classes of compounds. A variety of oxidations, reductions, polymerisations, etc., can then give a whole gamut of isoprenoid substances. The final steps in these syntheses, although of importance, are not as interesting from the biological point of view as the nature of the original small molecule from which these isoprenoid compounds are built. With regard to the terpenes, although a little experimental work has been carried out on the final steps in biosynthesis (i.e.,  $\gamma$ -terpinene to ascaridole), we know of no fundamental experimental work by which low molecular weight compounds have been built into a large terpene molecule.

In the last few years there has been renewed interest in the terpenes, due to the elucidation of the probable steps in the biosynthesis of rubber (a polyterpene) and the identification of the starting material in the synthesis of cholesterol (a steroid). These two achievements have led to what can be called the "acetate" hypothesis, which postulates acetate as the first substance utilised by plants in building up isoprenoid compounds.

Bonnor et al showed in 1949-51 that acetate, acetone and  $\beta$ -methyl crotonic acid increased the rubber content of slices of tissue of the Guayule rubber plant, but fluoracetate which inhibits acetate metabolism prevents the formation of rubber. This led them to postulate the following series of reactions:—



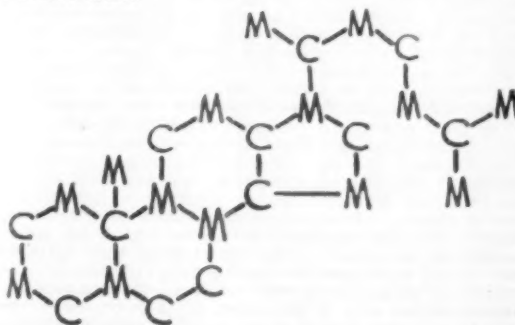
Confirmatory evidence was obtained by the use of acetate labelled with the radioactive isotope of carbon, carbon 14. When fed to plants, the resultant rubber was found to contain a much higher percentage of the radioactive carbon than the rest of the plant, and, in addition, radioactive  $\beta$ -methyl crotonic acid was isolated.

The asterisks in the scheme given above indicate a labelled carbon atom, and it will be seen that this scheme gives rubber with alternate radioactive and inactive carbon atoms, i.e., a methyl carbon to carboxyl carbon linkage throughout. It seems reasonable to assume, therefore, from this evidence, that the acetate molecule is the key building block in the synthesis of rubber.

The story of the biosynthesis of cholesterol is naturally a much longer one and at the same time more complex. The enormous mass of experimental data, which cannot be quoted here, indicates unequivocally that cholesterol and probably other sterols are built up from acetate units. The majority of the steps in the production of this C 27 molecule are unknown, but acetate has been shown by the use of radioactive isotopes of carbon to be the starting point, and there is some evidence to indicate that the final steps of the synthesis are as follows:—

Acetate  $\rightarrow$  squalene (a terpene hydrocarbon)  $\rightarrow$  lanosterol  $\rightarrow$  cholesterol.

In this synthesis of cholesterol, 15 acetate residues are involved—joined head to tail, just as in rubber, with the elimination of three methyl groups to give the C 27 molecule.



The methyl carbon is indicated by "m," and the carbonyl carbon by "c."

In conjunction with Professor A. J. Birch, of the University of Sydney, we are engaged at present in attempting to elucidate the biosynthetic pathways in the formation of the terpenes in the Australian oil-bearing flora. We are concentrating for the moment on the examination of citronellal formation in the well-known "lemon scented gum" of Queensland, *Eucalyptus citriodora*.

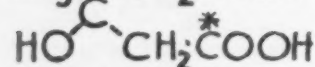
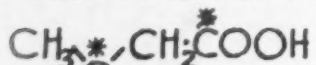
We postulate in this case the following series of reactions, viz.:-



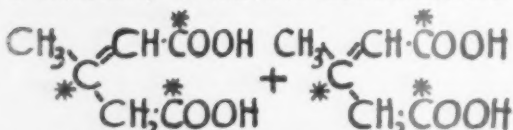
TWO ACETATE MOLECULES



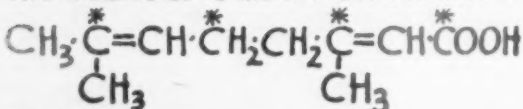
ACETOACETATE PLUS FURTHER ACETATE



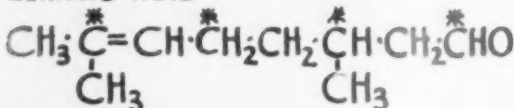
3-HYDROXY-3-METHYL-GLUTARIC ACID



TWO MOLECULES 3-METHYL-GLUTACONIC ACID



GERANIC ACID



CITRONELLAL

This fits in with the evidence from the cholesterol syntheses, but the pathway to rubber according to Bonner, via acetone and  $\beta$ -methyl crotonic acid, is also a possibility, as this could also give geranic acid by condensation of two molecules of the acid, followed by reduction. We have made a search for these intermediate acids in the very young growth of *Eucalyptus citriodora* without success, although a great number of acids were located. However, this does not invalidate the above hypothesis, as these intermediate acids could be utilised by the plant as soon as they were formed.

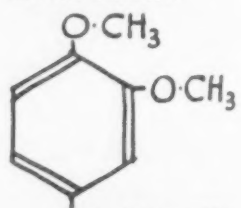
The most potentially valuable experiments which we have commenced are those using radioactive carbon. Two different sets of experiments have been established. In the first set, trees were injected with acetate labelled with Carbon 14, and allowed to remain for several weeks. Auto-radiographs taken of the leaves showed that the radioactive carbon had been incorporated in all tissues. The leaves were then distilled and the oil examined for radioactivity. However, the amount of radioactivity was too small for quantitative determination, and it has been decided to leave the trees for a longer period to see whether sufficient radio-

active acetate is incorporated into the oil for an accurate analysis to be made.

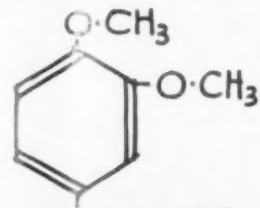
The second set of experiments consists of seedlings growing in sand and watered with a culture solution containing radioactive acetate. It is hoped that these seedlings will absorb the acetate through the roots, but although some acetate has reached the leaves, no information as to the method of its incorporation in the oil is yet available, as the experiment is still in progress. When sufficient acetate has been incorporated, it is intended to distil the leaves and isolate the citronellal, and by degrading the molecule stepwise, one carbon atom at a time, and measuring the radioactivity of each, it should be possible to determine exactly how the acetate units are built into the citronellal molecule. On theoretical grounds, the carbon atoms should be alternatively active and inactive, as can be seen from the above scheme, where an asterisk denotes the active carbon atoms. It will be noted the molecule is made up of methyl carbon to carboxyl carbon linkages throughout, just as in rubber and cholesterol.

If these experiments indicate that the acetate hypothesis holds for the essential oil components, it will be necessary to follow up the work to determine the actual intermediate steps in the synthesis. This can be accomplished by feeding radioactive intermediates to the plant and seeing whether they are incorporated in the oil.

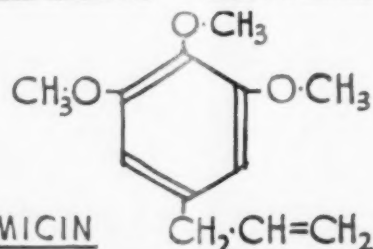
The final steps in the synthesis of these compounds can also be investigated by studying the simple systems in the physiological forms of the Australian oil-bearing flora. For example, the essential oil of *Eucalyptus citriodora* consists largely of citronellal, 65%-85%, but the oil of its physiological form consists mainly of the corresponding alcohol, citronellol. There are also several shrubs yielding oils rich in citral, whose corresponding physiological forms give oils free of citral, and consisting almost entirely of citronellal and isopulegol. And finally, there is *Melaleuca bracteata* and its physiological forms, the oils of which consist almost entirely of individual phenol ethers, as major constituents. All these species and their forms are potentially valuable in the elucidation of the final steps in their own particular biosynthetic system. *M. bracteata* and its forms are of particular interest, as one form contains methyl eugenol, one methyl iso-eugenol and one elemicin.



METHYL EUGENOL



METHYL ISOEUGENOL



ELEMICIN

These phenol ethers are of some commercial importance, and have been tested for activity as adjuvants for pyrethrum.

Now it is apparent that these three compounds can be transformed one into the other by means of single, simple chemical steps. This indicates that one of these substances is found in all the forms, and is transformed into the other compounds in each variety by a single enzymatic step. For example, methyl eugenol could be the common substance. This could be enzymatically transformed into methyl iso-eugenol by a simple double bond shift, or into elemicin by the addition of a hydroxyl group and subsequent methylation. Because of this, it is tempting to suggest that we have here an example of the one-gene-one enzyme hypothesis, and it is intended to test this hypothesis by breeding experiments. At the same time, these transformations will be attempted *in vitro* with crude enzyme extracts. On theoretical grounds, we also predict the occurrence of an iso-elemicin form, and a search is at present being conducted to find it.

Another line of attack is by using what we call partition experiments. By the application of standard sampling techniques, it has been found that oil yield and oil composition in individual trees varies according to the physiological age of the leaves, and that leaves of identical physiological age have identical oils and oil yields. For example, compounds present in young leaves are quite often found to have disappeared altogether from the mature leaf, indicating that they were a step in the synthesis of the compound present in older leaves. These differences can be quantitatively studied, and it has been shown that the piperitone content of *Eucalyptus* leaves rises considerably as the leaves mature, apparently at the expense of the hydrocarbons. Since these techniques render possible valid comparisons between leaf in varying stages of development, it is expected that these studies will throw some light on the origin of essential oils. It has been shown in other species of *eucalypts* as well, that oxygenated compounds increase in concentration in the oil at the expense of hydrocarbons with increase in age of leaf, and it is hoped by the use of distillation procedures capable of handling single leaves and by partitioning the young leaf into further age groups to obtain even more valuable information on this point.

In conclusion, a few words on the function of essential oils in plants will be relevant. There have been many speculations concerning the role of essential oils in plants, but as yet no satisfactory conclusions have been reached. It has been suggested that scent in flowers plays a part in the pollination of certain odoriferous groups of plants. It has also been suggested that the oils act as a protection against insect attack. Other theories suggest that they are reserve food materials or toxic products stored in special cells, but perhaps the most persistent theory is that the oils in leaves assist the plant in cutting down its water loss. There is some evidence that oils are effective in attracting insects in insect pollinated plants, e.g., some *Spartium* and *Trifolium* species seem to attract insects from a great distance by their powerful odours, but there is no evidence whatsoever that essential oils protect plant organs from insect attack. Only two series of experiments have been carried out on the effect of oils in cutting down water loss in plants. In both of these, the technique is open to objection, but in both cases the workers found that essential oil vapour in concentrations similar to that expected of a leaf surface had no effect whatsoever in cutting down water loss.

We incline towards the theory that essential oils are by-products with no metabolic function. It is a fact that oils, unlike most "reserve" material in plants, are not translocated from the leaf back into the plant proper just before leaf-fall, and it is evident that the oils when finally formed are of no chemical value to the plants. We tend to agree with W. O. James, who considers that alkaloids are "accidental" materials formed when a standard metabolic process in the plant is altered by some random factor, e.g., by mutation, and we consider that this theory might well apply to essential oil-bearing plants.

## SOME PROBLEMS IN ASEPTIC FILLING OF INJECTIONS

By E. B. Pollard and A. I. Stahel

### Foreword

In this paper we propose to discuss some of the problems which we have encountered in the aseptic filling of injections, particularly in relation to the filling of insulin solutions.

The provision of optimal working conditions, a basic requirement, presents several major problems, especially in an industrial area, where severe dust conditions are encountered. Similarly, many varied factors have to be taken into account in designing equipment.

### Air Filtration Plant

It is desirable that the whole operation, including solutioning, preparation and sterilisation of components, filling and sampling for sterility and potency, should be carried out in the one suite of rooms, which are serviced with an air filtration plant.

The standards of cleanliness of the air desirable in operating theatres are suggested by Bourdillon, McFarlan and Thomas (Studies in Air Hygiene, M.R.C., 262/1948, p. 253), to be

For minor operations or dressing small wounds in casualty theatres, 20 bacteria carrying particles per cubic foot.

For major operations on tissues with normal resistance to infections, 10 bacteria carrying particles per cubic foot.

For dressing burns or other procedures, where the dangers of infection are particularly great, e.g., in Neuro-surgical Theatres, 2-0.1 bacteria carrying particles per cubic foot.

Taking these as a general guide, we have aimed at a standard of 10 bacteria carrying particles per cubic foot in the aseptic rooms, and as low a figure as possible in the filling cabinet, these figures to be maintained while work is in progress.

To achieve this, we installed a system utilising dry fabric type air filters supplied by Messrs. Vokes (Australia) Pty. Ltd. Air is drawn into the filtering system from outside the building through oil mesh filters, which remove macro dust particles, and then, through 3 Vokes Kompak filters, arranged in parallel. The makers state that these filters have a guaranteed efficiency rating of 99.9%, based on the elimination of dust particles down to 5 microns. The velocity of the air passing through the filter is only 22.5 ft. per minute, and these filters are rated to deal with 600 cubic feet of air (each) per minute. The air is then blown through 3 Vokes "Microvee" filters, which will remove particles below 5 microns in size; these filters also work under a relatively low velocity of air. The filtered air is blown along ceiling height ductings, and through canisters filled with cotton-wool, into the several rooms. This plant was designed to give 10 changes of air per hour.

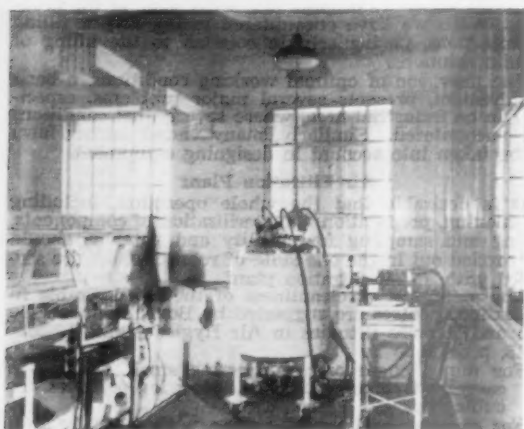
The cabinet in which the actual filling operation takes place was also equipped with a smaller air filtration plant, using a single Vokes "Microvee" filter.

### Testing of Filtered Air

For some time we relied on exposed agar plates to give us an indication of the degree of "cleanliness" of the air in aseptic areas. This resulted in interesting but unpredictable results.

However, by courtesy of Dr. P. Rountree, of the Fairfax Institute of Pathology, Royal Prince Alfred Hospital, Sydney, we were able to make air tests using a Slit Sampler. In this apparatus a known volume of air is drawn through a narrow slit, and impinges upon a revolving petri dish containing nutrient agar. Dust particles adhere to the surface of the agar, and after incubation for 48 hours colonies seeded from dust particles can be counted, and the relative cleanliness of the air can be determined as expressed in Colonies per Cubic Foot.

Using this apparatus, we have found in a series of tests that air as delivered from the ceiling ducts contains an average of 2.3 colonies per cubic foot (range 0.2-3.0). Air samples taken near operations being carried out in the filling room contain 8.0 colonies per cubic foot (range 2.0-10.0) when operators were not masked, and 3.3 colonies (range 1.8-4.6) when the operators were masked. Air samples in the filling cabinet (where vials and solution are exposed during the filling operation)



Insulin filling room showing relative positions of filling cabinet, holding tank and stainless steel filter press.

contain an average of 0.7 colonies per cubic foot (range 0-3.0).

To maintain these conditions, the "Microvee" filters are cleaned weekly with an industrial vacuum cleaner, and the "Kompak" filters are replaced once a month. In addition, the "Microvee" filters themselves are replaced every three months.

#### Equipment Design

In the fabrication of equipment for use in solutioning and filling injection solutions, basic consideration must be given to:

- (a) The effect of the component materials on the solution.
- (b) The ease and efficiency of sterilisation of equipment.
- (c) The effective utilisation of equipment under aseptic conditions.
- (d) The effect of temperature on the solution when stored.

To discuss these in order:—

- (a) The effect of the component material on the solution.

To illustrate this, workers at the Wellcome Chemical Works, Dartford, Kent, showed that many metals tested are unsatisfactory for use in contact with acidic insulin solutions, whereas stainless steels tested do not react perceptibly with insulin solutions, and should be suitable if prolonged contact is avoided. We have found that 18.8 MO (F.M.B.) Stainless Steel is suitable for most pharmaceutical operations of this type.

- (b) Ease and Efficiency of Sterilisation.

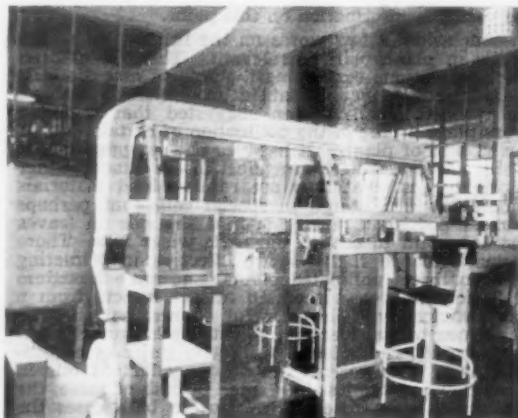
1. Bulking Vessel—A type which we find satisfactory is of 75 gallon capacity, of stainless steel. The tank is fitted with a combined liquid inlet/outlet, which also serves as an inlet for steam for sterilisation, two air filters, pressure gauge, safety valve and sight glasses. Steam from the service line is run in through a T-piece with three valves, the third side of the T being the by-pass for the condensate. The steam hose is connected to the liquid inlet of the tank by means of a female threaded nut and tail piece. Above this there is a nozzle fitting for rubber hose, which is used as the liquid inlet/outlet. This fitting then

can be sterilised at the same time as the tank. The steam hose is disconnected aseptically when the liquid inlet hose is connected. The air filters are of 14 cm. diameter, with two plates and separating plate enclosing two Filter Pads (Fords Sterimats, SB grade). The filters are connected to the tank by a Saunders valve, which gives a rubber-to-metal seal, with no access of the solution to any valve gland. Above the upper plate of each filter is a nozzle hose fitting covered with a knurled cap, which is fitted with a valve. The air filters and hose nozzle fittings can be sterilised by steam under pressure, at the same time as the tank is sterilised.

2. The filter press is of stainless steel, and has 12 distance frames and 11 filter plates, giving a total filtering area of 1536 square inches. We are using Ford's Sterimats SB grade for the filtration operation.

It may be necessary to treat the pads before use because of their alkaline nature, e.g., the pads must be adequately acidified before use with acid insulin solutions. This is done after sterilisation, but before the actual filtration commences. Sterilisation of the press is carried out with the press completely assembled with pads in position and with the drainage tubes and liquid inlet and outlet covered with vegetable parchment. Handling of the press to and from the autoclave presents a difficulty because of the weight. We overcame this by using a trolley of the same height as the autoclave cylinder; this trolley also serves as a stand during the filtration operation.

3. The dry sterilising oven—To ensure even heating, internal circulation of the air in the oven is an important factor to be considered in design. This can be achieved by a built-in fan at one side of the oven, the shaft of which is connected through a gland and coupling to an external motor. An efficient temperature recording device is also a necessary fitting. We are using an electrically operated Cambridge recording Thermograph.



Insulin filling cabinet.

- (c) Effective Utilisation of Equipment Under Aseptic Conditions.

With the restrictions of dress and movement necessary in aseptic work, accessibility to valves and hose connections is important. In the bulking vessel, efficient mixing can be done by using filtered compressed air blown in through a sparge tube connected to one of the air filters.

- (d) Storage of Solution.

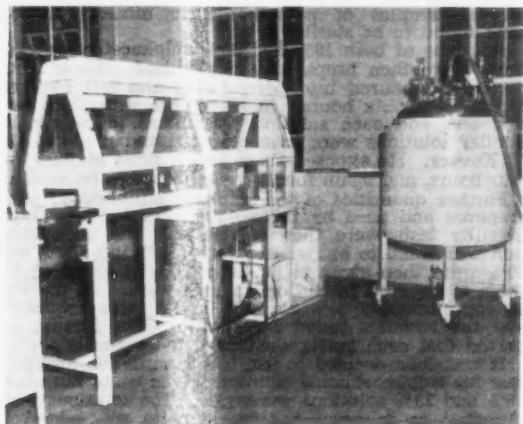
It has been found that Insulin solution stored at 30° C. (i.e., 86° F.) for three weeks may lose



up to 7% of its potency. In view of the summer conditions prevailing in Sydney, it was decided to maintain the bulk solution at a temperature of 40° C. This was done by providing an automatically controlled refrigerating unit, which circulates water at 4° C. through a jacket on the bulk solution vessel.

#### Filling Cabinet and Apparatus

The whole filling operation is conducted under a glass and enamelled metal cabinet specially designed for this operation. This has a sloping metal top with removable glass panels seated on rubber. The whole cabinet can thus be swabbed down with antiseptic solution daily.



Filling Cabinet and Bulk Solution Vessel.

The filling machine is a double pump rack type "Am-pak" machine with all metal parts. Chromium plated or of stainless steel. The phials pass after filling to two operators, who insert the combined plug and cap, and are then passed out of the cabinet to the capping machine.

#### Components

Our interest in aseptic filling operations has been limited to multidose containers. Closure of both 5 and 10 mil. vials is by means of a gum rubber plug, which is held in place by an anodised aluminium collar spun under the rim of the bottle.

Components are fabricated locally, at our request, by Rubbertex Pty. Ltd. for rubber plugs, and Australian Glass Manufacturers Co. Pty. Ltd., for vials and collars. We would like to acknowledge the help of both firms in solving problems associated with the use of the "Goldie closure" seal.

This type of closure produces several major problems because of the small tolerances allowable for each of the components. Variation in the height, rim and neck measurements of vials affects both the filling and capping operation.

This can result in the filling operation in inadequate clearance of the filling needle or wetting of the neck of the bottle, in the capping operation, bottle breakage, failure to spin on the aluminium collar, or doming of the rubber plug.

Pretreatment of the rubber plugs and aluminium collars before assembly and sterilisation, in a detergent solution, is necessary to remove adherent particles. Agitator and spin drier type of domestic washing machine is satisfactory for this purpose.

If the aluminium collar is anodised, it is important to test the fastness of the colour, and this can be done by steaming in an autoclave.

We have found that the plug and aluminium collar should be assembled before autoclaving to (a) eliminate the clumping together of rubber plugs and (b) reduce the number of capping operations. If the rubber plug is badly cut, the pressure of the collar will also tend to cause doming or ridging of the collar.

Variation in the diameter and length of skirt of the aluminium collar outside the normal tolerances results in either a sloppy fit or failure to cap the vial adequately.

#### Personnel

We would like to mention briefly some of the aspects associated with personnel engaged in aseptic work. We have instituted standard procedures for all work in the sterile area. Operatives remove their footwear in the dressing room and put on sterilised canvas boots. They then proceed to the anteroom, where, after scrubbing up with hexochlorophene soap, they dress in sterilised head gear, masks and gowns in that order. In the filling area, personnel have to scrub up again before changing jobs. Each operative is trained in all the filling functions. We have found that this type of work produces a feeling of pride and personal satisfaction among the people engaged in it.

#### Sterility Testing

It has been found advisable to use a section of the sterile area for inoculation of test samples into media. This obviates the risk of contamination of media and gives confidence in the genuineness of the final results.

Full aseptic technique (this includes wearing sterile clothing) is observed.

The presence of a bacteriostatic agent in the injection dictates the quantity of media used for each test—in our case we invariably use 5 mls. of inoculum in 300 ml. of media (B.P. media for both aerobic and anaerobic organisms). For this purpose we have found a 16 oz. oval emulsion bottle with wide neck and a heavy gauge aluminium screw cap with rubber wad to be very satisfactory. This type of bottle stands up well to autoclaving and is easy to clean. We have also found that a "Microid" bulb pipette filler eliminates an obvious hazard when sampling with a pipette.

For methods and standards in sterility testing—The British Therapeutic Substances Act is followed, particularly in relation to the number of samples and the procedure to be followed when a re-test is necessary.

In addition to the final product, sterility tests are carried out on all batches of heat sterilised vials, on bulk solution, rubber plugs and collars, and at intervals on instruments and apparatus.

#### Summary

This short paper will give some indication of the various problems involved in this type of work, problems leading to investigations in many fields.

We wish to thank the Directors of Burroughs, Wellcome & Co. (Australia) Ltd. for permission to publish this paper.

## ACETYLCHOLINE

### Summary of Receptor-Surface Hydrolysis Theory

A. J. Cobcroft, Victorian College of Pharmacy,  
Department of Chemistry

(Abstract of address given to Section O)

Since the time when Sir Henry Dale postulated the presence in the body of an enzyme that brought about the hydrolysis of acetylcholine, there has been a vast accumulation of data on the subject.

Cholinesterases—both "true" and "pseudo"—have been found in the blood-stream of a great variety of animals, but it has not always been possible to establish the presence of biological substrates for these enzymes.

The discovery of the physiological role of acetylcholine as one of the main chemical mediators in the transmission of nerve impulses has subsequently led to the synthesis of numerous compounds having similar effects.

These effects are produced in two main ways: either by simulation of acetylcholine, or by preventing its hydrolysis. A large number of compounds of diverse chemical structure—the so-called anticholinesterases—produce their effects in the latter fashion.

Apart from the analogues and antagonists of acetylcholine, there is another class of compounds which antagonises its effects. These are the ganglionic blocking agents and muscle relaxants.



Attempts to correlate the data concerning the transmission of nerve impulses are hampered by the lack of a complete explanation of the actual mechanism of acetylcholine mediation at ganglionic and neuromuscular functions.

By making certain assumptions regarding the nature of active centres on the receptor-surface, a theory has been developed to explain the mechanism on the basis of a physico-chemical consideration of ester hydrolysis.

The claim is made that a fundamental part of the process is the release of protons from the receptor-surface. Consideration is given to the methods whereby the protagonists and antagonists of acetylcholine either produce or inhibit this release of protons.

It is suggested that a clearer picture of the mechanism of transmission would be obtained by a closer study of the stereochemical configurations of the various drug molecules, particularly with regard to the pattern of receptor-centres with which such drugs combine.

The proposed surface-hydrolysis theory does not assign any role to cholinesterase as a separate entity, but claims that the hydrolysis of acetylcholine is an integral part of the repetitive mechanism of transmission. With regard to serum- and erythrocyte-cholinesterases, it is claimed that these are not primarily concerned with the hydrolysis of choline esters, but that the hydrolysis is effected because of their surface configuration.

For a more detailed explanation of the theory, the article on "Acetylcholine" in the August, 1955, issue of this Journal should be consulted.

## EXPERIENCE WITH SOME OPHTHALMIC VEHICLES

By E. J. Nicholas

There have been numerous reports of severe infections being caused with eye drops contaminated with *Pseudomonas pyocyanea*. McCullogh<sup>1</sup> indicated that almost any commonly used drugs could be contaminated with *Pseudomonas pyocyanea*, and particularly fluorescein and eserine eye drops.

In W.A. we have had some experience of eye drops of Sulphacetamide Sodium being contaminated. Samples taken were found to be contaminated with bacteria of both the colus and mesentericus groups, mixed Staphylococci, as well as *Manilia albicans*. This contamination was traced after there had been some complaints. It was found that the stock bottles of Sulphacetamide were heavily contaminated with *Manilia* (three varieties), an aerial actinomycete and a few bacilli. As sulphacetamide has no effect on *Manilia* and many other organisms, it became urgent to devise a method of sterilisation and a vehicle that would maintain the sterility.

Hind and Sykely <sup>2</sup> reported a formulation of	
Sulphacetamide Sodium	30.0
Sodium Sulphite Anhydrous	0.1
Phenylmercuric Nitrate	0.004
Distilled Water	to 100.0

but did not indicate heat treatment, nor report any check on the maintenance of sterility.

As the B.P. recommends the use of phenylmercuric nitrate 0.002% as a bactericide for parenteral use, it was reasoned that a stronger strength would not harm the eyes. Also it was noted that the B.P. process of sterilisation by heating with a bactericide could be used to sterilise these drops.

A solution corresponding with this formula was prepared and distributed in 12 dropper bottles of 8 ml. capacity. Six of the bottles were maintained at 98-100° C. for 30 minutes. The sulphacetamide was then determined by the B.P. method of assay. No difference in concentration could be detected between the samples heat treated and those not heated. The solutions showed no discolouration.

Phenylmercuric nitrate 0.004% solution was used in the eyes of 30 volunteers. These were broken up into three groups of ten. The first group used the phenylmercuric nitrate solution, the second group N saline

(autoclaved), and the third group distilled water (autoclaved). The bottles were numbered, and no one knew what they were using. One drop was placed in one eye, three times a day for four days.

Three of the group using water reported slight irritation and mild smarting. Four of the group using N saline reported similarly. Four of the group using the phenylmercuric nitrate had the same report. In each case the smarting or irritation cleared in about fifteen minutes. From this it was concluded that the phenylmercuric nitrate 0.004% solution is relatively non-irritant.

All the samples of distilled water and of N saline were found to be contaminated when tested for sterility. All the samples of phenylmercuric nitrate solution were found to be sterile.

Solutions of both 10% and 30% sulphacetamide eye-drops were then prepared and sterilised. These solutions were poured into petri dishes and left exposed to the air for six hours. Sterility tests were then carried out, and each solution was found to be sterile. Similar solutions were then prepared and given to Dr. N. Kovacs. He exposed them in the same manner for four hours, and again found the solutions to be sterile.

Further quantities of the sulphacetamide drops were prepared and used by three volunteers for four days. Sterility tests were then carried out, and each solution was found to be sterile. Samples of 10%, 20% and 30% were then given to Dr. Kovacs, who arranged for them to be used in the ophthalmic ward. At the end of approximately a week, the bottles were recovered and the residues tested for sterility. Dr. Kovacs reported that each bottle was found to be sterile.

It was then decided to use this formulation and process for sulphacetamide solution in the State hospitals; 10% and 30% solutions were used. The solutions were prepared as follows:—Sodium sulphite was added to the phenylmercuric nitrate solution. The sulphacetamide sodium-sulphacetamide mixture was added and dissolved. The solution was filtered by means of sintered glass funnels of porosity 2 or 3, and packed into 8 ml. dropper bottles. The bottles had been cleaned but not heat treated. The caps were screwed down tight, and the bottles steamed for 30 minutes. Since then we have prepared 1230 bottles of 10% and 30% solutions of sulphacetamide, which have been used without any complaints. During that time we have tested for sterility the residue of a further 60 bottles without finding any contamination.

We now believe that the use of tested vehicles can be related to the B.P. process of sterilisation by heating with a bactericide. Emphasis must be placed on the use of small dropper bottles, and not supplying in one container more than one week's supply of eye-drops.

The same process has now been applied to Physostigmine Salicylate 0.5%, using the following formula:—

Physostigmine Salicylate	0.5
Sodium Sulphite	0.1
Phenylmercuric Nitrate	0.004
Boric Acid Buffer (pH 5) Solution	to 100

This has been exposed to the air in a similar way, and has again proved to retain its sterility. Atropine sulphate 1% solution buffered at pH 6 has also been prepared, containing Benzalkonium Chloride 1 in 5000. Fluorescein solution has also been prepared with Benzalkonium Chloride. The work with these is still proceeding, and will be reported when complete.

In conclusion, we recommend that for eye drops of thermostable medicaments the B.P. process of heating with a bactericide be used, also that the B.P. range of bactericides be increased and further examined for their suitability in the eyes.

I am indebted to Dr. N. Kovacs, Bacteriologist, Department of Public Health Laboratories, Perth, for carrying out the confirmatory tests and for arranging trials in the ophthalmic ward. Most of the practical work was done by the W.A. final students, 1954.

1. McCullogh; A.M.A. Arch. Ophthal. 1943, 29, 121.
2. Hind and Szekely; Amer. Pharm. Journ., Pract. Ed. Oct., 1953.

# BRITISH PHARMACEUTICAL CONFERENCE

Aberdeen Meeting, September, 1955

## CHAIRMAN'S ADDRESS

### BACTERIAL PYROGENS

By J. P. Todd, Ph.D., F.P.S., Professor of Pharmacy,  
Glasgow.

(Airmail from Our London Correspondent)

#### Foreword

Dr. Seibert: "I started to work with the pyrogen back in 1923 and I can really say that I have never found any more difficult work than the work with pyrogen. In fact, I used to call it my little blue devil because it was there and wasn't there. I was impressed with the elusiveness of it, and the fact that it might be everywhere. It appears in all your flasks, all your water and in everything you work with. I am wary of the possibility of contaminating what I am working with, with a pyrogen. I have to wash all my glassware with freshly distilled water, make all my chemical reagents up with freshly distilled water, and I have to use special filters in order to eliminate the pyrogen."

"Pyrogens exist in very small concentration and give such a tremendous reaction. I am so much impressed with all this work that is being done, but I wonder, has it been done that carefully? Are some of these pictures that you get mixtures, due partly to what you are giving but also due to contaminants?"

I am going to speak today about bacterial pyrogen. I am doing so because recently they have attracted renewed interest as therapeutic agents. I have said "renewed" because in different forms they were used with some success earlier in this century for the treatment of a number of disorders. I would also like to speak about them because I have had many tussles with them, especially in blood transfusion work, and many of the problems encountered then are still not solved. I feel, too, that in this country we are thinking too much about their nuisance value and not enough about their potentialities in the treatment of disease. I would like to discuss their potential value as non-specific therapeutic agents and to show that we have now reached the stage where bacterial pyrogens in pure form can, with advantage, replace the older materials and methods for producing a general stimulation of the defence mechanisms of the body.

In this country great interest used to be taken in the therapeutic uses of materials such as typhoid vaccine, used non-specifically, which were of value in the treatment of certain diseases although they had some disadvantages such as uncertainty of action and undesirable side effects. But during the last 30 years the older preparations have gradually been falling out of use and the flood of modern chemotherapeutic agents has hastened this process. Like many another old remedy they are again exciting interest, especially in the United States of America, and on the Continent, since their active principles have recently been isolated and purified and their effects and dose can now be readily controlled. The undesirable side effects are almost entirely absent in the new forms.

I should also like to consider the nature and chemical structure of these purified pyrogens so far as it is known and their behaviour when injected into the body and then to make brief reference to their uses in the treatment and amelioration of a variety of disorders.

Proceedings Research Conference on Activities of Bacterial Pyrogens at the University of Pennsylvania, March 2, 1951, S. 58.

I shall not be able to devote any time to the purely pharmaceutical problems which these substances present as contaminants in parenteral preparations. This was the subject of a recent Symposium on Pyrogens<sup>1</sup>.

Bacterial pyrogen appears to be capable of effecting, safely and rapidly, a general mobilisation of the body defences to an extent seen only when the body has been insulted by the harmful effects of trauma, infection and other forms of injury.

The stimulation and mobilisation of body defences which follows bacterial infections or trauma, or the injection of irritant substances, or excessive heat or cold has for long been known to produce a state of alarm and stress in the animal body. No complete understanding has yet emerged of the complicated "chain-reactions" which Selye has, perhaps too simply, called the "alarm reaction". The substance or condition which produces it has been called the "stressor". The same or similar effects to those produced by the injection of bacterial pyrogen are produced by a variety of stressors. Pyrogen differs from the others in that its effects are produced without disagreeable or unpleasant aspects such as being ill or injured. One would hesitate to induce a general stimulation by infecting a sick person with an organism causing malaria or other disease to alleviate the patient's sickness if another less drastic method were available, or to inject an intensely painful and irritating substance like turpentine or sulphur deep into a muscle, but this is still practised in certain places for the benefit to the patient which ensues in certain disorders<sup>2</sup>. These general methods of stimulating the body's defensive mechanism, including the injection of bacterial pyrogen, are forms of non-specific therapy as opposed to specific therapy seen in the use of diphtheria anti-toxin to treat diphtheria.

One of the forms of non-specific therapy practised shortly after the beginning of the century was called "protein shock," because it was believed that protein when injected was capable of acting as a non-specific stimulating agent or stressor. I first became acquainted with this form of therapy when working with the late Professor Ralph Stockman in the 1920's. Stockman was a great clinician and research worker, and many people besides myself are grateful for his influence at the formative period of our lives. Professor Sir David Campbell, of Aberdeen University, one of our guests at this Aberdeen Conference, and the President of The General Medical Council, was one of Stockman's lecturers at that time, and he also was interested in protein shock therapy and published at least one paper on its use in the treatment of rheumatoid arthritis.

At that time it was believed that almost any protein from almost any source was effective, and this led to the injection of milk protein, tumour extracts, horse serum and many others. It is believed now that the stimulating effect of the injection of protein from many different sources was really the result of contamination with bacteria or their metabolites and was, in fact, a reaction caused by bacterial pyrogen. Ordinary household milk was a popular source of protein for shock therapy at that time as it was easily available, and one writer describes how he obtained better effects by the injection of market milk. This supports the view which was even then gaining favour, that the effect was the result of bacterial contamination, especially when it was later shown that protein from milk obtained aseptically was not pyrogenic and was not effective.

It is not easy to prepare protein material or derivatives such as blood plasma or protein hydrolysates or even milk for intravenous injection without bacterial contamination and it is no reflection on the competence of the earlier workers to say they were mistaken as to the agent causing the reaction. Simple protein as such does not produce a specific stimulation, although it does possess its own special effects. But we must not dismiss protein altogether from our picture since some bacterial proteins may function as carriers of the pyrogenic grouping under certain conditions which we shall discuss later. Anyone interested in this period when protein shock treatment was at its zenith can read about it in a book published by Petersen<sup>4</sup>.

Bacterial vaccines, notably typhoid and TAB, were also used in this connection as a protein source with surprisingly good results; but it was not then suspected that what is now believed to be the active component of the vaccines, namely, bacterial pyrogen, belonged to the same group of substances as those which at that time were causing trouble in injection fluids—substances to which Hort and Penfold had drawn attention in 1912<sup>5-7</sup>, and which Seibert<sup>8,9</sup> was investigating in the early 1920's. It is now tolerably certain that the active substance in our vaccines and pharmaceutical injections and the very active substance now being supplied for clinical trials are the same, or differ in minor characters only.

By means of any of the agencies we have mentioned as well as by physical methods and tissue injury, many bodily changes, including high fever, can be produced. These are accompanied first by a fall in the white blood cells, which is called a leucopenia, then by an increase in the white cells, called a leucocytosis, and by other changes which are characteristic of the "alarm reaction" of Selye. We are chiefly concerned today with bacterial pyrogen and its various properties, but before finally leaving these other methods of stimulation I would like to refer again to the use of sulphur or turpentine injections.

Menkin<sup>10,11</sup> and Abderhalden<sup>12,13</sup> have shown that there exist in body tissues and cells, endogenous substances which are capable of causing the characteristic fever and white blood cell changes produced by bacterial pyrogen. To distinguish our bacterial pyrogen from the endogenous pyrogen of the body tissues, we usually refer to it as "exogenous pyrogen." We do not know what relation, if any, exists between our exogenous bacterial pyrogen and the endogenous factors of the body as described by Menkin and Abderhalden, but it is widely felt that either they or other endogenous substances must be concerned.

When, for example, sulphur is injected into a muscle a great deal of local inflammation and oedema is produced and local cell damage is caused, resulting in a high and prolonged fever accompanied by the blood cell changes already mentioned. A distressing feature of this method is the great pain and discomfort caused. It appears here as if some endogenous pyrogen arising from the damaged tissue cells or white blood cells had been liberated after the injection. It is possible, therefore, to inject an extremely irritating substance either intravenously or intramuscularly, and so to reproduce the effects characteristic of a highly pyrogenic reaction when in fact no pyrogen is injected at all. One wonders when reading the literature of the period around 1910 how many of the reported reactions which stimulated Hort and Penfold and Florence Seibert to study pyrogenic reactions in injection which led to the conception of bacterial pyrogen, and which had previously been described by various names such as "injection" fever, "salvarsan" fever, and so on, were in fact due entirely to pyrogen and how many to the irritation of the medicament or the method of injection. We must not, of course, exaggerate this point, but it is perhaps

worth remembering as it may sometimes explain an unexpected reaction.

In this connection Dr. Favez<sup>14</sup>, head of a large tuberculosis clinic in Lausanne, has described the effect of PAS when given in massive doses by a vein, as is the practice in Switzerland and in the West of Scotland in the treatment of tuberculosis. Favez's patients were so much benefited by a stimulating side effect of his undoubtedly non-pyrogenic material that he conceived the idea of the simultaneous administration of a purified pyrogen to increase and extend even further this effect. In certain types of tuberculosis he obtained highly beneficial results.

It is generally held that stimulation therapy is contraindicated in tuberculosis patients since it often liberates dormant organisms from resistant foci which can be a dangerous procedure. This view, however, belongs to the period when the chemotherapy of tuberculosis was much less advanced than it is today. In any case, Favez is convinced of the value of the method and has much evidence to support his view. It is known that bacterial pyrogen has a fibrinolytic action<sup>15</sup> and Favez is of the opinion that this fibrinolytic effect may bring about the liberation of the tubercle bacilli from resistant foci, so exposing them to attack by chemotherapeutic agents which otherwise would be ineffective.

Pyrogen has effects other than the production of fever. In fact, for therapeutic purposes the title is no longer very suitable, and its retention is justified only because any change would cause confusion. Westphal, in Germany, calls it "Reizstoffe" or "irritating substance." In fact, from recent clinical reports it appears that in a great many cases the pyrogenic (thermal) effect is unnecessary and undesirable, and it has become the custom either to suppress the fever by the administration of anti-pyretics or by using a smaller dose. In any case, fever is only one of the effects produced. But perhaps if we do not take the name too literally it is on the whole better to retain it if only for the sake of tradition.

Before going on to consider the source and nature of bacterial pyrogen let me conclude this section by saying that there is a great deal of published evidence to support the view that the older methods and materials used in non-specific therapy had many virtues. Now, with the advent of the purified active principles capable of exact dosage and predictable effect, it is possible to reassess the value of pyrogen in medical treatment. I do not think we can ignore its possibilities.

### The Source and Nature of Bacterial Pyrogen

All the evidence suggests that only the Gram-negative organisms need be considered as fruitful sources of the pyrogenic and stimulating substances we have been discussing and that the pyrogen is associated with the endotoxin. If Gram-positive organisms are killed by heat they exert little or no pyrogenic action, whereas either alive or dead the Gram-negative bacteria have a powerful action when injected<sup>16</sup>. In general the Gram-positive types allow soluble exotoxins to pass into the medium whereas the Gram-negative types retain the complete endotoxin principles in or on the cell surface and only soluble fractions including pyrogen are found in the medium<sup>17</sup>.

The endotoxin was first extracted in undegraded by Boivin and his colleagues<sup>18,19</sup>. Since then it has been further studied by many workers who approached the problem chiefly from the immunological and biochemical aspects and were not concerned with these substances as sources of pyrogen. Later, groups of workers examined the water-soluble fraction to study another curious property, that of causing necrosis or break-down in tumour tissues, a property of bacterial extracts which had been known for many years. The endotoxin exists in all types of Gram-negative organisms so far inves-



tigated and, in practically all, the general structure and properties are very much the same.

Its characteristic properties are not destroyed by heating in water at 100 deg. C., and it thus differs sharply from the exotoxins of the Gram-positive forms which, with few exceptions, are quickly inactivated by heat.

In most Gram-positive organisms the exotoxins are largely composed of protein, which readily suffers denaturation, whereas Boivin found that the Gram-negative endotoxins are complexes of polysaccharides and other constituents. Immunologically they behave as the dominant O-somatic antigens and because of their toxicity they were originally called "bacterial endotoxins," so that either name may be met. In far-reaching researches into the nature of this antigenic complex, Morgan and Partridge<sup>22</sup> showed that it consists of a complex of protein, active lipopolysaccharide and inert lipid.

Goebel and others<sup>23</sup> had found that Flexner dysentery organisms, which are also Gram-negative, yielded a strongly antigenic and toxic endotoxin which went into solution in pyridine and water. Palmer and Gerlough<sup>24</sup> devised the useful phenol process of deproteinisation which, in modified form, has in recent times yielded such valuable results in the hands of Westphal, Luderitz and their colleagues in Germany.

The pioneer endotoxin work of Boivin<sup>25,26</sup>, Morgan and Partridge<sup>22</sup>, Miles and Pirie<sup>27</sup>, Goebel<sup>23</sup> and many others, paved the way for recent workers such as Westphal, who studied these substances mainly as sources of pyrogen, and for others such as Shear<sup>28,29</sup>, who studied them because of their tumour-necrotising action. The result of the work of this group made it clear that most Gram-negative organisms contain a similar complex made up of a protein, a toxic factor bound to a polysaccharide and an inert lipid of the cephalin type. The toxic factor, which appears also to contain phosphorus, is the factor in which pharmacists are chiefly interested, as it appears that this substance is mainly responsible for the pyrogenic and the other related effects. The toxic factor when isolated from the bacterial complex seems to be attached firmly to the polysaccharide, which is therefore described as a lipopolysaccharide. The toxic lipid, usually found firmly bound to the polysaccharide, is different in structure and properties from the inert lipid previously mentioned, which is not at all toxic, and it is also a more complex substance. The whole endotoxic complex appears to constitute, or to be closely connected with, the surface of the bacterial cell in smooth varieties, the polysaccharide moiety resembling the capsular membrane of the pneumococcus in this respect. The polysaccharide is almost completely lacking in the rough forms of the organisms.

It is an over-simplification therefore to say, as is often done, that pyrogens are lipopolysaccharide, since in rough forms of the organisms the pyrogenic constituent can be separated along with the protein and the polysaccharide constituent is present only in small amount. We can, in fact, extract from R-forms a pyrogen which is associated with the protein of the R-types of organisms. This pyrogenic protein is, however, much less active than the pyrogenic lipopolysaccharide, suggesting that the degree of activity is related to the particle structure and that protein is a less suitable carrier for the activity-conferring lipid than is polysaccharide.

This is also shown if the toxic lipid is separated by acid hydrolysis from either the protein or the polysaccharide when it occurs as a fatty or waxy substance very insoluble in water, but soluble in chloroform, and, is not active for the purely physical reason of insolubility. Westphal<sup>30</sup> has shown that if the separated lipid is dispersed by means of a surface-active substance such as Tween, it regains some, but not all, of its activity. The removal of this lipid from the bacterial

complex removes also the toxic and pyrogenic properties, leaving either degraded polysaccharide or simple amphoteric protein.

If the bacterial endotoxin, which is composed of a complex of bacterial protein, lipopolysaccharide and inert lipid, is split by the method of Goebel by hydrolysis in alkaline alcoholic solution, we obtain products, one of which is a toxic lipopolysaccharide and the other a non-toxic protein; whereas with gentle acid hydrolysis we obtain a toxic protein and a degraded non-toxic polysaccharide. We see from this that the toxic pyrogenic factor may occur along with a polysaccharide or a protein carrier, according to conditions.

Workers who have investigated the problem with a view to isolating a pyrogenic factor generally isolate the toxic lipopolysaccharide, largely because of the methods adopted and the fact that the lipid fraction is firmly bound to the polysaccharide. Recently (June, 1955), Davies, Morgan and Record have separated from *Shigella dysenteriae* a polysaccharide in three forms. The first, a degraded form with a molecular weight of about 25,000, which proved to be non-toxic, non-antigenic, but was pyrogenic in relatively large doses; The second, an undegraded polysaccharide, extracted from the organism with diethylene glycol, with a molecular weight of the order of one million. This material was poorly antigenic but was pyrogenic in doses of 0.05 µg./kg. The third was a lipopolysaccharide isolated from the protein-polysaccharide complex with phenol. The lipopolysaccharide was of very large particle size and was a powerful heterophile (Forssman), antigen, but was only weakly active in the production of specific agglutinins and precipitins in rabbits. This lipopolysaccharide appears to be of the same order of pyrogenic activity as the pure lipopolysaccharides of Westphal.

It is possible to transfer the lipid to other carriers by a method devised by Morgan<sup>31</sup>, who showed that artificial complexes could be made by coupling the active lipopolysaccharide or the conjugated protein of dysentery or typhoid organisms to a variety of substrates such as agar or mucin or to proteins such as vitellin or serum globulin. Westphal<sup>32</sup> finds that such coupling only occurs when the toxic lipid is present, and has succeeded in transferring the lipid to a casein carrier, so producing a highly active artificial pyrogen.

Little is known about the nature of the pyrogenic substance in pharmaceutical solutions. The substance must be present in a very active form since the few bacteria originally present are represented only by their soluble by-products, usually much diluted. The active substance may be the lipopolysaccharide already described, or perhaps a more active form containing the active grouping favourably presented by a suitable carrier.

Co Tui<sup>33</sup> was the first worker to attack this problem from the angle of the pyrogenic activity. He succeeded in isolating from aqueous cultures of the dead bacterial bodies, a polysaccharide substance which was free from protein and had high activity; but the greatest amount of light yet thrown on this subject has undoubtedly come from the work of Westphal and his colleagues in Germany and Switzerland during the last year or two. They improved Palmer and Gerlough's phenol process by extraction with water and phenol miscible at high temperatures; these separated on cooling to an aqueous phase containing lipopolysaccharide and nucleic acid and a phenol phase containing bacterial protein and inert lipid. Westphal has in this way produced what is probably the purest and most pyrogenically-active polysaccharide yet extracted<sup>34,35</sup>. From the material obtained by the phenol extraction of the acetone-dried bacterial bodies—he separated the active substance from the nucleic acid by fractional precipitation with alcohol, taking advantage of the nucleic acid absorption at 258 to 260 mµ, and finally by purification using the preparative

ultra-centrifuge. He found that this method was applicable to all the Gram-negative organisms he examined.

He and his colleagues were able to show that the lipopolysaccharide is electrophoretically homogeneous with a molecular weight of about one million. Other workers examining active polysaccharides from similar organisms have given values of up to 10 million. It is probable that molecular weight is largely influenced by the condition of extraction and degree of polymerisation which has occurred.

There is a need for a standard pyrogen, and at present Westphal's preparation is probably the most suitable for this purpose and could well be adopted until further knowledge is forthcoming about the nature of the active fraction or active grouping. Workers in America<sup>44</sup> have also produced highly purified preparations, but according to our measurements of relative potency it is doubtful if those we have been privileged to examine approach the activity of Westphal's preparation. The great difficulty lies in separating the nucleic acid. It has been shown that Westphal's *E. coli* lipopolysaccharide contains about 40 per cent. of active lipid tightly bound to the polysaccharide carrier. The polysaccharide portion is composed of aminosugars including glucosamine and chondrosamine with pentoses and methyl pentoses. The amino-sugars are acetylated and phosphorus is bound to the toxic lipid in small amount, and to the polysaccharide in greater amount, probably in the form of esters. The complete structure of the active lipid is still unknown, but it contains acetyl groups as well as phosphorus and is a phospholipid. The active lipid can be separated from the undegraded polysaccharide by hydrolysis with dilute mineral acid as was shown by Miles and Pirie and other workers with the O-antigen of brucella some years ago.

Niemann<sup>45,46</sup> has examined a pyrogenic lipopolysaccharide isolated in a study of the tumour-necrotising action of a strain of *E. coli*, and has shown the presence of a number of fatty acids such as lauric and myristic along with glucosamine, ethanolamine, phosphoric acid and a curious substance not hitherto reported, which consists of a paraffinoid chain with two substituting amino groups. He calls this substance "necrosamine" and this may prove to be of great pharmacological interest. You will see that we are on the verge of interesting discoveries and that there remains a great deal of work still to be done.

Westphal has endeavoured to produce active preparations for subcutaneous use by acetylation of the hydroxyl groups of the polysaccharide, and many other interesting attempts to modify the molecule with a view to modification of the pharmacological characters have also been made with some success. Acetylation of the sugars reduces the toxicity and modifies some of the stimulating actions, but the acetylated pyrogen prepared from *Salmonella abortus equi* is still undergoing clinical trials.

#### Mode of Action

The mode of action of bacterial pyrogen is not yet completely understood but it is believed that the fever and other effects produced as a result of the injection of bacterial (i.e., exogenous) pyrogen, are largely due to a stimulation of the central nervous and other systems by an endogenous factor or factors liberated into the bloodstream. Rather surprisingly, evidence has been produced to show that the hypothalamus is not necessarily involved in this reaction<sup>47,48</sup>. After injection and before the rise in temperature takes place there is a great increase in the intake of oxygen; but the rise in temperature which follows is produced by conservation of heat by the constriction of surface blood vessels rather than by an increased heat production by shivering<sup>49,50</sup>.

During a pyrogen test most workers have noticed that the rabbits' ears and pads become very cold as a

result of this local vasoconstriction which, it is said, is mediated by the sympathetic nerves. Anti-pyretics will abolish the temperature response without interfering with the other effects of pyrogen and this offers some therapeutic advantages, but dictates in these instances the use of some other index of pyrogenic activity (e.g., a white blood cell method). This is important also in the testing of anti-pyretic substances for the presence of pyrogen.

The rise in temperature after intravenous injection of pyrogen is preceded by a latent period of no temperature rise of up to 90 minutes in man and rather less in rabbits, after which there is a fairly sharp rise in temperature. As was stated this is proportional to the dose given within a limited dose range. Pre-injection temperature is gradually reached again after several hours.

The explanation of the latent period is still a matter for some speculation, but it has been shown that if plasma is taken from a normal animal and incubated for a few minutes with pyrogen and then reinjected, the ensuing latent period is shortened<sup>51,52</sup>. This, together with the work of Grant<sup>53</sup> suggested that during the latent period a new substance is being formed in the body or that the bacterial pyrogen is being modified in some way to produce an endogenous substance which if reinjected acts more rapidly.

We already have mentioned that Menkin<sup>52,54</sup> and also Abderhalden<sup>55,56</sup> have described substances occurring in body fluids which display some of the properties of endogenous pyrogens and which are liberated more abundantly from tissues and cells on injury; it has not been proved that the reaction following the injection of exogenous (bacterial) pyrogen is due to the liberation of endogenous pyrogen from the tissues although some workers believe this to be the case.

If repeated daily injections of pyrogen are given to experimental animals the dose has to be increased in order to maintain the same level of response because the body seems quickly to become tolerant to the effects of pyrogen. This tolerance, however, disappears in two or three weeks in rabbits<sup>57</sup> and this has to be remembered in carrying out routine British Pharmacopoeial limit tests. Man also becomes tolerant to the effects of injected pyrogen and this was a major difficulty in using vaccines as sources of pyrogen.

The mechanism of the production of tolerance is not clearly understood, but it is fairly well agreed that it is not directly related to the production of antibodies. This does not mean that the pyrogenic lipopolysaccharide is completely non-antigenic; it appears to be a hapten or incomplete antigen and it seems to be more antigenic in some animals than in others<sup>58</sup>. It is, however, a potent heterophile (Forssman) antigen<sup>59</sup>. Even in those instances in which the presence of circulating antibodies to pyrogen have been claimed, no diminution in the pyrogenic response was found; and where pyrogens have been administered together with antigens the appearance and disappearance of tolerance of pyrogen did not parallel the appearance and disappearance of antibodies<sup>60,61</sup> whose production was stimulated by the antigens.

Beeson<sup>62</sup> has shown that an induced tolerance to pyrogen may be broken down by blocking the reticuloendothelial system with colloidal thorium dioxide. This suggests that in the tolerant animal it is the reticuloendothelial system which has developed enhanced ability to eliminate or destroy endogenous pyrogen. This rapidly acquired tolerance, necessitating an increased dose to maintain the level of response, was one of the factors which discouraged the use of vaccines to produce a pyrogenic reaction which would stimulate the body defences. The dosage of successive injections had to be rapidly stepped up in order to maintain an effective response. One worker writes of administering a milky fluid<sup>63</sup> heavily loaded with bacterial bodies in an





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attempt to maintain the same level of reaction. As vaccines are not without other toxic components this incidental increase in the toxic substances also administered, had undesirable side effects. The new highly purified pyrogens are free from side effects of this kind because they are free from impurities, and while increasing dosage must be given to offset induced tolerance the initial dosage is so minute (of the order of 0.1 to 0.2  $\mu$ g. for Westphal's pyrogen, "Pyrexal," prepared from *Salmonella abortus equi*, and 1 to 2  $\mu$ g. for "Piromen," the American preparation), that even the largest dose given contains little, if any, extraneous toxic material.

While on the subject of tolerance it is appropriate to mention our own experience with purified pyrogens. We have found that the tolerance developed with a pyrogen preparation from *Proteus vulgaris* is also valid for a salmonella and a pseudomonas pyrogen, indicating a high degree of cross tolerance and a common active component in all three.

The rise in temperature which occurs is always accompanied by changes in the white blood cells, although the reverse is not always true<sup>10,11</sup>. With an ordinary pyrogenic dose there is first a disappearance of the white blood cells, that is leucopenia, followed by a rapid increase in the total number of white cells, a leucocytosis, especially of young polymorphonuclear leucocytes with undivided nuclei. This is accompanied by an eosinopenia and a sustained lymphopenia. This appearance of the young polymorphs giving what is called a "shift to the left" is also seen in many conditions of stress, for example, bacterial infections, and injury. With pyrogenic stimulation the degree of shift to the left is proportional to the dose of pyrogen<sup>12</sup>.

It is believed that this white blood cell effect is at least in part mediated by the liberation of ACTH from the hypophysis with subsequent increased secretion of the adrenal cortical hormones<sup>13,14</sup>. It is interesting to speculate to what extent a course of pyrogen injections could replace a course of injections of either ACTH or cortisone in certain conditions. Several of the effects of ACTH, for example, white blood cell effect, are similar to the effects of pyrogen and it was this finding which first prompted the replacement of ACTH by pyrogen in allergies. Nevertheless one very important difference exists: ACTH causes a profound temperature-fall in normal animals (hypothermia) when injected at the rate of one unit per kg. We have found that added pyrogen will reduce this hypothermia, and will elicit the typical pyrogenic response with a delayed peak if large amounts are present. If smaller amounts are present the response does not correspond to the amount added.

Some rabbits appear to be unduly sensitive to the action of ACTH and a state of semi-collapse follows the injection of even one unit/kg. In these the hypothermia is so severe and prolonged that no pyrexia occurs and the test fails to detect the presence of added pyrogen. In our experience with rabbits in testing ACTH for pyrogen, the test which uses fever as an index is extremely unsatisfactory, but we can as yet suggest no alternative. ACTH also interferes with the white cell response to pyrogen, so that this, too, is rendered unsuitable as an index of pyrogen present in the ACTH.

It is believed that the white blood cell changes following injection of pyrogen are largely mediated by the adrenal cortex, as they are substantially altered in adrenalectomised animals<sup>15,16</sup>. This stimulation of the adrenal cortex appears to be in response to the increased secretion of ACTH, which may in turn be the result of a fall in circulating corticoids which may follow the demands of the tissues after injury or stimulation of the tissue cells by pyrogen. Evidence of pituitary adrenal stimulation by pyrogen is also found in the increased urinary excretion of corticoids<sup>17</sup> and in the fluctuation of plasma ascorbic acid levels<sup>18</sup>. What-

ever the mechanics of the process there is adequate evidence of the activation of the pituitary adrenal cortex cycle.

Clinical experience has shown that long-continued administration of cortisone or ACTH has disadvantages; the withdrawal effects of these hormones are also common and are sometimes evidenced by resistant exacerbations<sup>19</sup>. The advantages of stimulating the adrenal cortex with pyrogen thus becomes apparent. The withdrawal effects and endocrine disturbances seen with ACTH and cortisone do not occur in pyrogen therapy.

Besides a well marked stimulation of the pituitary adrenal systems the influence of injected pyrogen is seen on connective tissue and on the reticulo-endothelial system. The dermis is an essential part of the reticulo-endothelial system, and the stimulation of this system by pyrogen has been shown dramatically in the healing effect of pyrogen on burned, wounded and frostbitten skin<sup>20,21</sup>. In experiments on the regeneration in the central nervous system it has been shown that by enhancing vascularity of the area, pyrogen inhibits the formation of gliosis and so facilitates regeneration of nerve fibre. Evidence for structural regeneration has been supplied and in laboratory studies some functional regeneration has been reported<sup>22,23</sup>. This is new evidence in a problem which has been perplexing neurologists for years.

It has been known for many years that Gram-negative bacterial extracts when injected have the power to cause breakdown and necrosis in tumour tissue. A preparation known as Coley's fluid was in use for some time for this purpose. Dr. Shear, in America, has investigated the purified lipopolysaccharide which he has obtained from *Serratia marcescens*<sup>24</sup> (*B. Prodigiosum*). In addition to its ability to cause breakdown of neoplastic tissue this substance also proved to be a potent pyrogen<sup>25</sup> and there is evidence of a common tumour-necrotising activity in many of the Gram-negative endotoxins.

We have seen in this section that apart from being a potentially useful remedy with remarkable effects, the lipopolysaccharide is proving to be a useful tool in revealing how many of the mechanisms of the various body systems function. Much work remains to be done to explain these actions fully and to decide, for example, whether there exist substances in the body each separately capable of stimulating one or other of the actions discussed.

#### Pyrogens as Medicaments

I cannot close without some reference to the various disorders which have been successfully treated by means of either vaccines or pure pyrogen. I shall mention only a few, but there is much published evidence concerning favourable effects in many disorders.

Let us be perfectly clear about one point: pyrogen is not a specific therapeutic agent like an antibiotic, which has its own bacterial spectrum, nor for that matter is it like an anti-toxin. Its action is not an attack, but a vigorous stimulation of the natural defences of the patient; and this is the rationale for its use in so many diseases. It may not be too bold to say that it has been the absence of such a defensive agent which has directed medical research towards finding attacking agents such as serologicals and antibiotics. Now that we have both there is no reason why they should not be used together—the one to help the other.

Some of the recent reports on the newer preparations advocate their use in sub-febrile doses; in others, febrile doses have been recommended, but the fever has been suppressed with antipyretics. On the other hand some workers believe that the actual production of fever is necessary for the full beneficial effects to be produced. There is little doubt that febrile doses are essential in certain conditions. In general, pyrogen appears to be most usefully used in conjunction with other specific therapies when such a combination appears rational.

The similarity of the effects of pyrogen, ACTH and cortisone on the white blood cell picture pointed to involvement of the pituitary-adrenal system in the pyrogen reaction, and the known beneficial effects of ACTH and cortisone in the treatment of allergic conditions suggested the use of pyrogen in a variety of conditions<sup>28</sup>. It seems that pyrogen is capable of filling a role similar to that filled by these hormones in allergic treatment, but without their dangers. And this is important; for dangers such as resistant exacerbations on withdrawal and endocrine imbalance often follow their use, while pyrogen therapy has, so far as is known, neither withdrawal symptoms nor long-term side effects<sup>28</sup>.

It is reported that sub-febrile doses are no less effective in giving relief in many conditions<sup>28,29</sup>, and moreover some patients report a sensation of relaxation and well-being after pyrogen treatment. It has since been found that sub-febrile doses of pyrogen are particularly useful in relieving the depression which often accompanies the allergic state<sup>30</sup>. It should be remembered, however, that pyrogen, like ACTH or cortisone, can act only as an adjunct to specific diagnosis and therapy in allergy. In this role pyrogen has been most useful, especially in stubborn cases of multiple allergies.

Several authors have reported favourably on pyrogen in dermatological practice using febrile and sub-febrile doses, and febrile doses with antipyretics. Superiority over vaccine therapy in this field has been well established<sup>31</sup> when febrile doses are administered. Fever can be avoided by utilising the subcutaneous or intra-muscular routes of administration, and pyrogen has been used successfully in this manner in various dermatological conditions as an adjunct to topical therapy<sup>32</sup>. More than one author has been impressed with the striking results obtained in the pyrogen treatment of otitis externa<sup>33,34</sup>. Complaining of the dangers and disadvantages attendant on the use of ACTH and cortisone in dermatological practice, Guerrieri, reporting a successful trial of pyrogen alone (Piromen) (alone) in neuro-dermatitis<sup>35</sup>, comments on its safety in use and the absence of any "post-treatment rebound." Other workers<sup>36,37</sup> have confirmed the beneficial effects in varied dermatoses.

The findings that in cats and dogs pyrogen aids nerve regeneration and that in transected spinal cords good anatomical regeneration takes place with enhanced vascularisation and absence of glial scarring are interesting<sup>38,39</sup>, and prompted one author<sup>40</sup> to use it (Piromen) in 118 cases of spinal cord injury and disease. Beneficial results were obtained in 10 per cent. of the patients, but he felt that further investigation was warranted as the dosage and duration of treatment had been inadequate. Improvement with pyrogen therapy had also been reported in other diseases involving the nervous system<sup>41,42</sup>.

The effect of pyrogen in stimulating the repair of damaged tissue has been investigated in the treatment of duodenal ulcers. The value of this treatment can easily be assessed from the results which are reported<sup>43</sup> as relief in 19 out of 25 cases with complete healing of the crater in 18 out of the 19. Recurrence was less than one-third.

The fibrinolytic action of pyrogen<sup>44</sup> has already been mentioned, but this localised action of pyrogen has another interesting application which has been known for many years. This concerns the use of pyrogen<sup>45</sup> for the detection of unsuspected foci in, for example, an infected gall bladder or other organ or tissue. Frequently, patients have complained of localised pain while undergoing pyrogen therapy and this has led to the detection of a septic focus at the site of pain.

One of the oldest uses of pyrogen has been the non-specific anti-bacterial effect; diphtheria carriers<sup>46</sup> have been cleared and other infections such as typhoid have been aided by fever therapy. The action of pyrogen as an adjuvant in sulphonamide and chloramphenicol

treatment has also been reported<sup>46</sup>. Cases of agranulocytosis<sup>46</sup> caused by drug treatment have been successfully treated and it has been assumed that the leucocytosis which follows the administration of pyrogen is responsible for this success.

This very brief review of the clinical applications of pyrogen will enable my audience to appreciate how the physiological effects of this remarkable substance have been systematically applied to the treatment of various disease states with considerable success.

We have reviewed the properties of bacterial pyrogens and have shown that they bring about a stimulation of the body's natural defences which are immediately mobilised when the body is attacked. Although our description of this attack and this mobilisation of defences is perhaps inadequate, and although we speak of stimuli, injury and irritation, which barely express the full meaning, it is clear that in pyrogen we have a tool which, if used intelligently, has great powers for good, not in one, but in a wide variety of conditions. It would be foolish to suggest that pyrogen therapy is a panacea or will render any existing useful drug unnecessary, but it is suggested that it will act as a vigorous booster to the well-tried medicament. Pyrogen therapy, I feel, is an ally and not a substitute for specific therapy.

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(References continued on page 1043.)



C.S.4

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## DISPENSING PROBLEMS

### Sodium Fluoride Paste for Treatment of Dental Caries

R  
Sod. Fluorid. . . . . 3 G.  
Glycer. . . . .  
Kaolin aa . . . . . Vol. 100

Sig: Paste for dental caries. To be rubbed on to the teeth.

This prescription was prescribed by a dentist for a child of approx. 10 years. It was not dispensed by the chemist, as the consensus of opinion, after reference to the literature and to the staff of the School of Dentistry, University of Melbourne, was that it should not be supplied direct to the patient, as it should be applied and removed by a qualified dentist only.

This prescription is of interest, because of its possible toxicity.

Reference to the literature<sup>1,2</sup> showed that pastes of sodium fluoride in bases of similar composition have been used to desensitize dentine, but it was evident that its application and safe removal of excess after a short period of contact required skilled dental technique.

To safeguard the patient, it is suggested that the above preparation be supplied directly to the patient's dentist only, to be applied and removed by him.

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—E.M.W. (Vic.).

### Combined or Uncombined Iodine?

Having received the following prescription several times within the last few weeks, I submit it for discussion:—

R  
Iodine . . . . . 1%  
Zinc Oxide . . . . . 10%  
White Soft Paraffin, ad . . . . . 3ii

1. The standard method is to dissolve the Iodine in an aqueous solution of Potassium Iodide and incorporate this into the base, substituting 5% of the Soft Paraffin with Wool Fat.

However, some references suggest dissolving the Iodine in a solution of Potassium Iodide in Glycerin. The Glycerin is preferred as being non-volatile. The Iodine does not tend to crystallise out as a result of evaporation of the solvent.

Using 1% of Potassium Iodide and 5% of Glycerin to dissolve the Iodine, and incorporating this into the Soft Paraffin/Wool Fat base, an entirely satisfactory product resulted.

2. Alternatively the Iodine may be dispensed as combined Iodine, being dissolved in four times its weight of Arachis Oil, by heating below 80° C. in a closed vessel until the brown colour disappears, and then incorporating this solution into the melted Soft Paraffin. This results in saturation of the unsaturated fatty acid groups in the Arachis oil.

—J.M. (Vic.).

Where no Arachis Oil is prescribed, the "Potassium Iodide and Glycerin" method is the most suitable.



### Iron Impurity in Liq. Ammon. Acet.

R  
Diuretin . . . . . 10 gr.  
Caffein Cit. . . . . 5 gr.  
Liq. Ammon. Acet. 120 m.  
Aq. Camph., ad. . . . . 240 m.

Theobromine and Sodium Salicylate being incompatible with acid salts (Caffeine Citrate), when dispensed as above, effervescence occurred, with subsequent precipitation.

Substituting the corresponding amount of Caffeine, a discoloration occurred within an hour, and became a very dark brown after several days.

By testing all combinations of the ingredients, the colour appeared to be caused by a reaction between the Liq. Ammon. Acet. and the Diuretin. This may be due to traces of iron in the former, reacting with the salicylate. The reaction only occurred in an alkaline medium, as there was no discoloration in the presence of the Caffeine Citrate.

The troublesome colour reaction was overcome by substituting an equivalent amount of Theobromine for the Diuretin and suspending this with Mucilage of Tragacanth. The sodium salicylate has no action other than solubilising the Theobromine.

—M.B. (Vic.).

### Infant's Dose of Aureomycin

Baby Brown (8 lb.).

R  
Aureomycin Spersoid . . . . . 5 G.  
Sig. . . . . 25 mg. b.i.d.

This prescription was received by us, and brought out the following points:—

- (a) The infant was suffering from a severe attack of enteritis, which had failed to respond to sulphadiazine.
- (b) The children's dose of Aureomycin Hydrochloride, B.P., 1953, is 10 to 20 mg./kg./day.
- (c) Aureomycin Spersoid contains 50 mg. of Aureomycin Hydrochloride to each 3 G. of powder.
- (d) Baby's weight = 8 lb. = 4 kg. (nearly). Thus the dose would be 40 to 80 mg. daily, in divided doses.
- (e) 25 mg. of Spersoid contains 0.5 mg. Aureomycin Hydrochloride (approx.).

This 0.5 mg. was to be given twice daily. This seemed to be all out of proportion with the calculated dose. The physician was contacted. He then ordered 75 G. of the Spersoid with a dose of 25 mg. of base twice daily.

- (f) A measure was calibrated and supplied.

—J.R.W. (Vic.).

### Electrode Paste Formula

Starch . . . . . 5  
Glycerin . . . . . 30  
Sodium Chloride . . . . . 20  
Water, to . . . . . 100

Dissolve the Sodium Chloride in the water and mix the solution with the starch. Add the mixture to the Glycerin previously heated to about 140°.

Heat at a temperature not exceeding 140°, with constant stirring, until a translucent jelly is formed.

—D. DEWHURST, Physiology Department, University of Melbourne.

# Prescription Proprietaries and New Drugs

By Geoff K. Treleaven, Ph.C., F.P.S., of the **Pharmaceutics Department, Victorian College of Pharmacy.**

(For most of the products listed, full information as to dosage may be obtained from the "Prescription Proprietaries Card Service" of "The A.J.P.")



## SOME NEW CORTICOSTEROID HORMONE PREPARATIONS

### ANALOGUE OF CORTISONE

Approved Name: **PREDNISON** (formerly Metacortandracin).

Proprietary Preparations (Tablets of 5 mg.):

**DECORTISYL** (Roussel); **METICORTEN** (Schering); **Delta CORTONE** (Merck).

### ANALOGUE OF HYDROCORTISONE

Approved Name: **PREDNISOLONE** (formerly Metacortandralone).

Proprietary Preparations (Tablets of 5 mg.):

**CODELCORTONE** (Merck); **METICORTEONE** (Schering); **Delta CORTEF** (Upjohn); **Delta STAB** (Boots); **Delta CORTIL** (Pfizer).

*Note:* Prednisone and Prednisolone are stated to possess three to five times the therapeutic effectiveness of cortisone or hydrocortisone, while being markedly devoid of undesirable side effects, i.e., sodium retention and excessive potassium depletion.

### FLUOROHYDROCORTISONE Acetate (9-alpha fluorohydrocortisone acetate)

The anti-inflammatory action appears to be at least 10 times that of cortisone or hydrocortisone. Because of its intense sodium retaining effect, fluorohydrocortisone is mainly used topically in skin diseases.

Proprietary Preparations:

**FLUDROCORTONE**—Merck-Ointment (0.1% and 0.25%).

**FLORINEF** (Squibb)—Lotion and Ointment—0.1%.

### RAUWOLFIA SERPENTINA PREPARATIONS

The following proprietary preparations are available (1/9/55):—

Preparations of Whole Root	Strength
<b>RAUDIXIN</b> (Squibb)	50 mg.
<b>Preparations of Total Alkaloids</b>	
<b>RAUWILOID</b> (Riker)	2 mg.
<b>SERPINA</b> (Himalayan Drug Co.)	4 mg.
<b>RAUWOLFIA</b> (Andrews)	0.4 mg. and 1 mg.
<b>Preparations of Selected Alkaloids</b>	
<b>SERFIA</b> (Knoll Laboratories)	0.2 mg. and 0.4 mg.
<b>HYPOTHAL</b> (McDonalds)	0.25 mg.
<b>Preparations of Reserpine Alkaloid</b>	
<b>SERPASIL</b> (Ciba)	0.1 mg. and 0.25 mg. 4 mg. (Mental Hospitals Only). also injection 1 mg.
<b>SANDRIL</b> (Lilly) also with Pyronil (antihistamine).	0.25 mg.
<b>SERTENSIN</b> (P.D.)	0.25 mg.
<b>RESERPIN</b> (Andrews)	0.1 and 0.25 mg.
<b>RESERPAL</b> (Faulding)	0.25 mg.
<b>SERPILOID</b> (Riker)	0.25 mg.
<b>QUIESCIN</b> (Organon)	0.1, 0.25 and 1 mg.
<b>RESERPINE</b> (Knoll Labs.)	0.1, 0.25 mg.

**Rauwiloid** is also available in combination as follows:—

**RAUWILOID** (1 mg.) plus **VERILOID** (3 mg.).

**RAUWILOID** (1 mg.), plus **HEXAMETHONIUM CHLORIDE** (250 mg.).

**RAUWIDRINE** (Rauwiloid 1 mg., plus Amphetamine Sulphate 5 mg.).

# Sapoderm



## • • • • • *In Home, School and Office*

This is a new soap for use in surgical scrubbing-up—whether of the surgeon's hands or of the operative field, or for the general control of skin infection in home, school or office. It is a first-class soap, containing hexachlorophene as the antiseptic substance, lightly perfumed to neutralise the faintly disagreeable odour of soap itself or of the antiseptic.

Hexachlorophene (otherwise known as G.11) is a complex organic compound recently introduced for the sterilisation of skin. Sapoderm contains 2 per cent. of hexachlorophene.

Sapoderm is admirably suited for use in the home because of its bactericidal action and because it does not appear to have any irritating effect on the skin.

Sapoderm is a cream-tinted soap, free from objectionable staining properties, and will be found very pleasant in use. The cake is of generous size (5 oz. approx.) and pleasantly shaped.

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## *Do you think I'm photogenic*

My name's LEW . . .

Posing's just a game to me, though I always try to look my best, as I've got some mighty important Corgi relations in England.

No one would let me into the darkroom while this film was developed and printed, but I know that they had something in there to help make the picture do me justice.

The man who belongs to me said it's a petro-chemical which SHELL scientists provide to help all sorts of people, including photographers.

However, between us all, I think the result is pretty good.



# NEW PRODUCTS

The following new products which have come to the Editor's attention during the past month have been judged newsworthy, and are herein reported as news.

The Board of Management of the Journal lately sought suggestions from chemists in all States. One of these that has been adopted is a "New Products" page, of which this is the first.

Each month one page will be divided into approximately six sections.

If the manufacturer or agent of a product listed would like an illustration of his product to appear as part of this free reference, the block should not exceed the equivalent of 1½ in. square. The Journal will arrange production of the block if desired, and the only charge made will be for the cost of the block and any art work required if we have to work from an actual sample of the product. A photograph would be preferable.

Those wishing to avail themselves of this service are invited to send pithy information (with photograph) for use as opportunity offers at the Editor's discretion.

## CHANGE OF FORMULA FOR ADCA VIMIX TABLETS

ADCA Vimix Tablets are now being marketed as an "over-the-counter" multi-vitamin tablet. The formula has been changed and now incorporates the essential vitamins necessary for human metabolism, plus essential trace elements.

**FORMULA:** Vit. B<sup>1</sup> 5 mg., Vit. B<sup>2</sup> 2.5 mg., Nicotinamide 25 mg., Vit. B<sup>6</sup> 0.5 mg., Calc. Pantothenate 1 mg., Vit. C 40 mg., Mang. Sulph. 2 mg., Copper Sulph. 2 mg.

Vimix Tablets will provide nutritional supplementation for those people whose normal vitamin intake is restricted.

Available from ADCA Houses in all States. 100, 12/5 ea.; Retail, 17/6. 1000 (dispensing pack), 112/6 each.



## MUSICAL CIGARETTE BOXES FOR CHRISTMAS

Attractive Old-English and Ship scenes on lacquered wood boxes, holding approximately 50 cigarettes. Boxes playing the following tunes available: Emperor Waltz; Wine, Love and Song; Estudiantina; Whispering; Die Fledermaus. Cost £3/9/-, plus tax.

Available D.H.A.



## YEASTON SERIES GROWS



**Vitamin C Now Added to Yeaston Tablets:** New Yeaston-Plus tablets now contain the whole vitamin B group, plus vitamin C, and increased yeast content for the treatment of malnutrition, indigestion, fatigue and skin eruptions arising from deficiencies of vitamins B and C.

New Yeaston-Plus tablets retail at 9/6 per bottle of 100.

Available from Roche Tompsitt & Co. Ltd., Melbourne.

## COMFORT THIS SUMMER



**Balm-Bar:** New modern hive, insect-bite and itch reliever, packed in attractive metal case, handy for pocket or purse. Balm-Bar is a non-greasy DMT stick with added anaesthetic ingredients.

Retail price, 4/6.

Manufactured by D.H.A. Laboratories, Melbourne. Available all Drug Houses.

## GIFTS FOR BABY



**Baby Trainer Sets** of Baby Trainer, teacher Beaker, soap container and adjustable clip for handkerchief or bib, doubly appreciated when dining or travelling. Available in pink and blue colours. Packed in attractive gift outer. Wholesale price 10/-, plus tax.

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£4/10/- each. 12½% tax. Retail (suggested), £7/10/-.

Available from Sigma Company Limited, Melbourne.



# Dispensing Pharmaceutical Benefits and Pensioners Medical Service Prescriptions Correctly

Address by Mr. L. W. Smith, State President of the N.S.W. Branch of the Guild, at the Annual Meeting of the Branch, held at Sydney on August 31, 1955.

"Honesty is like an icicle; once it melts that is the last of it."

As your leader, I live perpetually in the white light of publicity. In pharmacy, as in many other walks of life, the reward and the punishment are always the same. The reward is widespread recognition; the punishment, fierce denunciation.

Where a man's work becomes a standard for the whole community, and this applies to dispensing, when a pharmacist falls by the wayside, professionally, then, immediately all the caustic voices of the critics are raised against him, and the leader is assailed, in particular, because he is the leader. I therefore feel it my bounden duty to sharply remind any of you who might be tempted to transgress, that each and every one of you with a Commonwealth approval have, in fact, entered into an agreement with the Commonwealth Government, that you will do certain things, among them being to supply drugs or medicinal preparations of brand, strength and form as prescribed.

Section 84, Sub-Section (1) of the National Health Act 1953 defines brand as "in relation to a drug or medicinal preparation means the manufacturer's trade name for that drug or medicinal preparation or its name with reference to the manufacturer."

Regulation 29 states "Where a prescription for the supply of a general pharmaceutical benefit, presented to an approved pharmaceutical chemist, indicates a brand of that general pharmaceutical benefit, the approved pharmaceutical chemist shall NOT supply any other brand of that general pharmaceutical benefit unless the Director-General otherwise allows." This clearly and unequivocally precludes substitution of any kind whatsoever.

Regulation 38 of the Act states "A drug or medicinal preparation that is a pensioner pharmaceutical benefit shall conform to the standards of composition and purity constituted by the statements in the monographs in the B.P., the B.P.C. or the A.P.F." Furthermore, dispensing envisages several things: Firstly, the dispensed product, of whatever type it may be, whether for internal or external use, must contain the exact quantities ordered by the prescriber. Secondly, the dispensing must be accurately done, according to pharmaceutical art, so that the finished product can be given out to the customer over any pharmacist's counter, with the complete confidence that it is in accordance with the intention of the prescriber. Thirdly, the dispensing of pensioner's prescriptions, where compounding is required (with certain specified exceptions) requires and demands extemporaneous dispensing of the prescription, NOT the supplying of stock preparations such as Linctus Codeine, otherwise the claim for payment is equivalent to obtaining money under false pretences, and those of you who do it most assuredly commit an offence against the Act, since it is done knowingly and willingly, as ignorance thereto cannot be pleaded; moreover, you are digging your own and every other pharmacist's pharmaceutical grave.

It is quite certain that just retribution will eventually overtake you, and then the words of Mr. Justice Brereton will have perfect application. His Honour said:—

"The free medicine scheme offers a fine field for the unscrupulous. It presents abundant opportunities for cheats and frauds.

"The regulations controlling it contain few safeguards against dishonesty, principally no doubt because its implementation lies in the hands of doctors and chemists.

"Such men rank high in our community, and one expects that they will be trusted.

"If they break the trust reposed in them, they cannot expect clemency.

"When men, who, because of their status in the community, should and necessarily do, set an example to others, it is idle to whimper that this is their first offence."

Our dangers, it seems to me, are not from the outrageous, since they are usually dealt with appropriately, but from those who upset our complaisance by shocking us, and others, with their unexpected and unacceptable professional conduct.

An organisation in which each is willing to surrender only that for which he can see a personal equivalent, is not an organisation at all; it is a group in the process of dissolution.

In conclusion, when I hear impatient and irritable complaints and so much readiness to replace the existing with something intangible, I lapse into a dream, as it were; I see children playing together as I saw them in the bombed, flattened ruins of Berlin, their voices shrill and discordant, as children's are, one saying, "Let us make Otto the master, for Otto knows all about it, and he will tell us what each of us is to do, and we shall all agree." But Otto is like all the rest; so in the end, slowly, and with infinite disappointment, they do learn a little. They learn to forbear, to reckon with one another, to accept a little, where they wanted much, to live and let live, and in so living to do the right thing; in other words, "to do unto others as you would that they should do unto you," and the yardstick to use in this connection is—"Let your conscience be your guide."

## ERUPTION CAUSED BY CARBROMAL

Six cases of purpuric eruption, caused by therapeutic doses of carbromal, are described by P. Borrie (*Brit. Med. J.*, 1955, 1, 645); all six were seen in the skin department of St. Bartholomew's Hospital, London, during the first half of 1954. In each of the patients the symptoms were similar: an irritating eruption consisting of petechial and linear purpuric streaks, erythema, pigmentation and increased capillary fragility. The severity of the eruption was not related to the dose of carbromal, which varied from 3 to 20 grains nightly. In several instances, a patch test with carbromal 1 per cent. in propylene glycol was negative, but the eruption cleared in two to four weeks of the drug being stopped. The author suggests that the condition may be mistaken for pityriasis rosea, seborrhoeic dermatitis, or eczema. He considers that the use of carbromal as a nocturnal sedative is increasing in Britain. Only one of the six patients had obtained the drug on a doctor's prescription.—"Pharm. J.," March 19, 1955.

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The sulphonamide of choice in veterinary practice. High anti-bacterial activity. Low Toxicity. Rapidly absorbed but only slowly excreted.

*Indications include: Pneumonias of sheep, cattle, pigs. Enteric infections of calves and pigs. Septicaemias of horses and cattle. Coccidiosis of poultry.*

For infections of the intestinal tract, sulphadimidine can be combined advantageously with *phthalylsulphacetamide*, a non-absorbable sulphonamide.

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# Pharmacology for Pharmacy

By F. H. Shaw, M.Sc., Ph.D.(Lond.), Professor of Pharmacology, University of Melbourne.

## Seventh Article

### SYNTHETIC ANALGESICS

**Pethidine** was originally studied as a spasmolytic substitute for atropine. Like morphine, the chief pharmacological actions of pethidine are on the CNS, to produce analgesia and sedation. Minor effects are exerted on smooth muscles to cause spasm in some and relaxation in others. Pethidine is not as strong an analgesic as morphine, nor is it as sedative. Likewise, there is less euphoria and respiratory depression. The cough reflex is not affected, neither is there constriction of the pupils. The degree to which tolerance can develop is less than with morphine, and so is the liability to addiction, but the possibility of the latter is an ever-present danger. The side effects of pethidine are numerous, but not serious. Vertigo and dizziness are common in ambulatory patients, and they should be cautioned to avoid activities which incur a hazard because of dizziness. The psychic effects of pethidine are not always pleasant, especially in the pain-free individual. As after morphine, disagreeable symptoms may arise (dysphoria). Tremulousness, apprehension and a feeling of insecurity are common. Unpleasant dreams may be experienced. Overdosage with pethidine leads to excitement and not depression (except respiration). The indications for the use of pethidine are much the same as those for morphine. Although pethidine is effective orally, the results to be obtained by intramuscular injection are more certain. The lack of respiratory depression, stupefaction, urinary retention, constipation, etc., makes pethidine superior to morphine. Severe pain usually requires morphine. Pethidine is of considerable value in obstetrical analgesia. Untoward effects on the mother and child are usually absent.

**Physeptone (Amidone)** is a drug which was synthesised by German chemists and made available at the end of World War II. In spite of the fact that its chemical structure only remotely resembles that of morphine, the pharmacological properties of physeptone are qualitatively similar to those of the natural alkaloid.

This drug is a potent analgesic, but it also causes sedation and respiratory depression, and exhibits effects on smooth muscle and the cardio vascular system similar to those of morphine, but these actions are less prominent. In the case of physeptone oral administration is only slightly less effective than parenteral.

Physeptone is degraded, mainly in the liver, and excreted very rapidly, and the medication must be repeated at three to four hour intervals. Physeptone sometimes produces a euphoria, and may lead to addiction. Physeptone prevents or completely alleviates the morphine abstinence syndrome. This is always taken as presumptive evidence of addiction liability. Indeed, one first obtains warning of addiction danger by means of this test. Tolerance to physeptone develops slowly, and is perhaps seen only in the addict.

The primary use of Physeptone is for the relief of pain. It is also an effective antitussive agent. Its effect in obstetrical work is too variable, and is generally considered to be inferior to pethidine. One of its main uses is in the treatment of morphine addiction.

**Dromoran** more closely resembles morphine, both structurally and pharmacologically, than any other synthetic narcotic.

Careful comparison of the two drugs in a large series of patients fails to reveal any advantage of dromoran over morphine. As it usually takes five years or more to evaluate a drug, it is too early to define the role of dromoran in therapeutics.

A final point about the analgesic power of the new pain-killing agents. One often reads that a drug is so many more times as strong as morphine. This usually means that fewer milligrams of the drug are required to produce a certain degree of analgesia. This may be so, but in itself it is meaningless. It really does not matter whether the effective dose of a drug is small or large (in weight). A compound whose dose is measured in grams may even be cheaper than one whose dose is of milligram size. To say that one drug is more potent than another on a weight basis is meaningless. What is important is the ratio of the therapeutic dose to the toxic dose—the Therapeutic Index. If the value of this Index is not above three or four, then the drug must be used with the greatest caution.

**Mild Analgesics.** Our next group of substances owe their existence to a therapeutic fallacy. We must remember that malaria was once widespread in Europe. It was known as far north as Archangel, and was common in England. At this time malaria was descriptively called the *Ague*. A prominent symptom was fever (also the common denominator of other infections). When the patient recovered he was without fever. It was only natural to assume that if one could allay the fever one would cure the complaint. A logical fallacy known as *post hoc ergo propter hoc*. In other words, if A precedes B, in time A is the cause of B. This fallacy has set more scientists on the wrong road than any other logical error.

Today we know that fever is a beneficial consequence of infection, and we treat the infection and not the fever. The antipyretic property of Willow bark was known to the Ancients, and it was introduced into medicine for this reason. It was much later that the true value of the descendants of *Salix alba* was discovered—their mild analgesic action.

**Acetylsalicylic acid.** One of the most remarkable pharmacological actions of salicylates is the reduction of body temperature in cases of pyrexia. The action is all the more remarkable because the drug has no action on normal body temperature. The normal temperature of the body is controlled by altering the total heat lost (by radiation and convection), and not, at least directly, by regulating the heat formed. The heat loss, and accordingly the regulation, is brought about by altering the diameter of the skin blood vessels (cooling coil effect) and the degree of perspiration (Coolgardie Safe effect). The regulation is accomplished by a centre in the brain, the heat regulating centre (thermostat effect). Normally the "thermostat" is set at 98 deg. F., but in the presence of invading organisms

it may be set at a higher figure. Salicylates can "reset the elevated thermostat," but have no effect when it is at the normal value.

The most valuable action of aspirin is the mild analgesia which it produces. This it does without causing any mental disturbance. We know little about the site or mode of action of aspirin, but the fact that it does not affect our mental faculties suggests that its action is not in the cortex. Aspirin does not raise the measurable threshold to pain in either man or animals, as does morphine, etc. This suggests a different site of action.

The types of pain amenable to relief by aspirin are those of low intensity, whether circumscribed or widespread in origin; especially headache and pains arising from integumental structures rather than from viscera.

Salicylates have no effect on the heart or blood vessels. With the larger doses used in rheumatic fever there may be some stimulation of respiration, and the blood may be rendered very slightly more alkaline. No other organs are affected at all.

The main disadvantages of aspirin are epigastric distress and various allergic symptoms. Various attempts have been made to overcome the former by the use of alkaline mixtures. It is not possible to prevent the latter, which in some cases can be serious or even fatal. Most people recognise the allergic manifestations in themselves, and avoid all preparations containing aspirin. Salicylates can bring about an enhanced excretion of uric acid (uricosuric action). The mechanism by which this is done is ill-understood. Nor does an increased excretion of uric acid always lead to benefit in the gouty. Large doses are required, and tolerance can develop to the uricosuric action.

Although aspirin is an old and well-established drug, there are several new features of its pharmacology. Large doses, such as those used in the treatment of rheumatic fever, may interfere with the coagulation of the blood. This need not necessarily be serious unless the patient is about to undergo an operation. The condition can be corrected by administration of vitamin K.

Adrenal changes have been noted frequently in experimental animals receiving doses of salicylates. The ascorbic acid and cholesterol content of the adrenal glands of the experimental animal are lower than normal. This depletion of ascorbic acid and cholesterol is proportional to the dose in a manner similar to that produced by other stressing agents. In rare instances patients have been described who exhibited some of the clinical features associated with adrenal hypersecretion. The effects of aspirin on the pyrexia, tachycardia, erythrocyte sedimentation rate, and hemoglobin level, were comparable to those reported for cortisone.

The similarity of action of the salicylates to that of ACTH and particularly to cortisone in rheumatic fever has led to considerable speculation that the salicylates may act by increasing the secretion of adrenal hormones. Certain similarities between salicylates and cortisone are evident. Both reduce the temperature; both increase the uric acid excretion; both may cause water retention, then diuresis; and both may raise the fasting blood-sugar level. Three possible explanations are suggested. Salicylates and cortisone may act independently, but have some common pathway. Alternatively, both may have an adrenocorticotrophic action, although the balance of the evidence is against this. Finally, both may potentiate the naturally-occurring hormone, either by blocking its destruction or by increasing local tissue sensitivity.

When acetylsalicylic acid is ingested, it is absorbed as such, but it can be detected in the plasma only for a short period of time; for example, 30 minutes

later only 27 per cent. of the total plasma salicylate is in the acetylated form. The ester is rapidly hydrolysed in the plasma and tissues to salicylic acid, and its metabolites are the same as those found after administration of sodium salicylate. The enzyme responsible for the hydrolysis of acetylsalicylic acid is similar to liver esterase.

Concomitant ingestion of para-amino-benzoic acid in large doses also results in a higher plasma salicylate level than that attained by the administration of salicylate alone; it has been suggested that adjuvant therapy with para-aminobenzoic acid may be useful when large doses of salicylate do not yield therapeutically satisfactory blood levels.

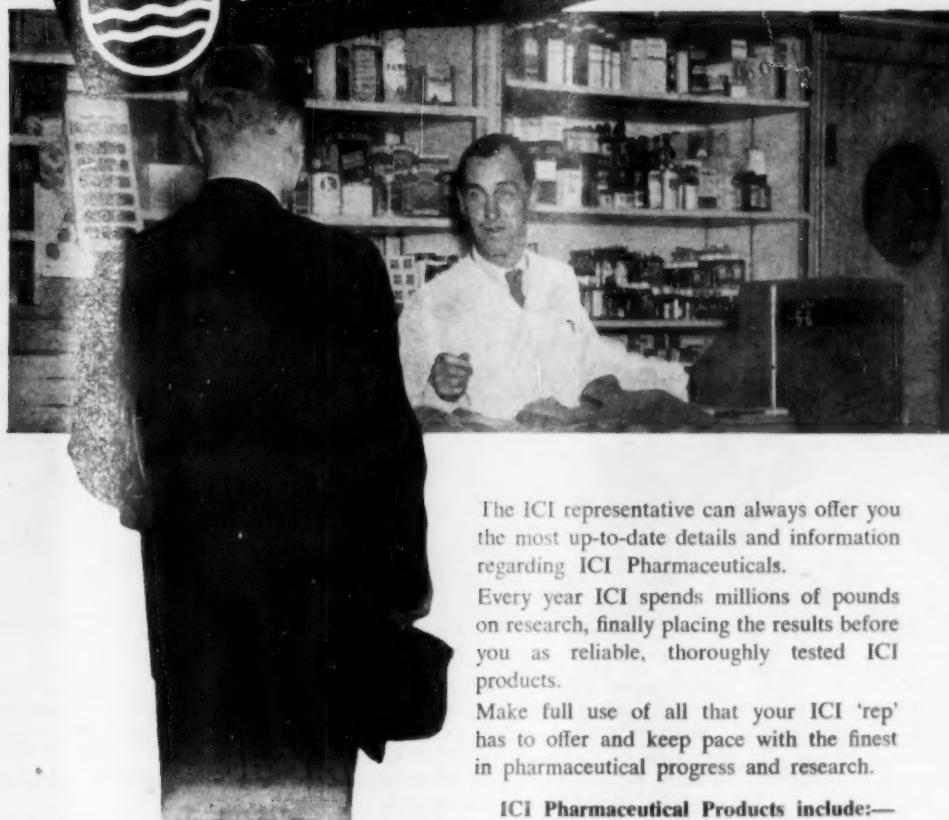
Salicylates are excreted from the body mainly by the kidney. Salicylate is found in human urine as free unaltered salicylate, salicyluric acid (an equimolecular compound of salicylic acid and glycine, analogous to hippuric acid), gentisic acid (2,5-dihydroxybenzoic acid), and conjugates of glycuronic and salicylic acid. Since these metabolites of salicylate have never been demonstrated in the serum, it is presumed, but not proved, that they are formed in the kidney itself.

The next useful mild analgesic is acetophenetidin (phenacetin). It is, however, slightly more toxic than aspirin. It does have the advantage that the toxic effects carry their own warning signal. The most outstanding characteristic of acetanilid poisoning is cyanosis. The cyanosis is due to methemoglobin, the blood pigment haemoglobin oxidised by the phenacetin, in some cases it is possible to demonstrate small amounts of sulphemoglobin. Some of the signs and symptoms of intoxication are a direct result of this change in blood pigment. The patient shows a bluish colour of the skin, mucosa and fingernails, and the altered pigment may be detectable on spectroscopic examination of the blood. The conversion of hemoglobin to methemoglobin, by the metabolic derivatives of acetanilid and acetophenetidin, occurs within the red blood cells, and the latter are not injured as a rule. Methemoglobin is incapable of acting as a respiratory pigment. The reduction in the amount of hemoglobin available for oxygen transport results in functional anaemia. If this anaemia is marked, symptoms such as breathlessness, vertigo, weakness and anginal pain are prominent. Phenacetin is used either alone or in conjunction with aspirin for mild analgesia and especially for headache. Sometimes caffeine is added in small amounts. Nobody knows why.

Aminopyrine and Antipyrine have also been used as analgesics. The former is particularly dangerous. It produces a poverty of certain white blood cells which is nearly always fatal (agranulocytosis).

Phenylbutazone (Butazolidin), a congener of aminopyrine, has recently been introduced for the treatment of rheumatoid arthritis. The drug has a rather specific effect on pain of this nature. A specific "antirheumatoid" action distinct from its analgesic effect has not been established. Phenylbutazone is poorly tolerated. Untoward effects are observed in 25 to 45 per cent. of patients, and medication must be discontinued in 10 to 15 per cent. Nausea, vomiting, gastrointestinal discomfort and skin rashes have been the most frequently reported symptoms of phenylbutazone intoxication. Diarrhoea, vertigo, insomnia, euphoria, nervousness, hematuria, stomatitis, blurred vision and hepatitis have also been observed. More serious forms of intoxication include reactivation of gastric and duodenal ulcers, with haemorrhage or perforation and agranulocytosis. The high incidence of untoward effects and serious toxicity, coupled with a lack of definite superiority of the drug over the less toxic analgesic-antipyretic agents makes it doubtful whether phenylbutazone will achieve a permanent place in the therapy of rheumatoid conditions.

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# The Medicinal and the Healing Properties of Mead in Fact and Fiction

By Frank A. King.

Mead has been defined as the general name for all drinks made of honey, but besides being a generalised name it has now come to refer, in a specialised sense, to that form of mead which is of a lower alcoholic strength, usually about 11 or 12 per cent., and of a slight sweetness. The bouquet of mead brings it near that group of French wines represented by the Moselles, although at times it comes near to the drier Sauternes. It can range from a dry sweet to a dry wine, according to the original sugar content in the must, to the development of its age, and for the degree of fermentation.

Some of the ancient writers refer to the magical liquor of mead as nectar, while others entertain the opposite idea, and refer to it as a food or ambrosia.

Although Homer certainly treats ambrosia as the food of the gods, Sappho mentions goblets crowned with ambrosia, which suggests a liquor.

Virgil certainly considered it a medicinal preparation, as we find in the "Aeneid" (XII, 383-440), where the wounds of Aeneas were cured when Venus "sprinkles health-giving juices of ambrosia" upon the gashes; and in the same sense he uses the term in his "Georgics" (IV, 415) concerning Cyrene, that "so she speaks, and sheds abroad an odorous stream of ambrosia."

It is obvious that both nectar and ambrosia were derived from honey, and it is possible that, whichever was the food, this may have been merely a honey or a honey-posset, having the same consistency as the Dutch liqueur Advokat, which, in Holland and elsewhere, is eaten with a spoon out of the glass.

The theme that high in the sky was the storehouse of the gods, containing a heavenly honey which had the power to heal all wounds, is to be found in the mythology of the Germans. In Teutonic mythology it has been identified with amrita, nectar and ambrosia as the magic mead which Odin stole.

But to leave mythology awhile and come to the traditions associated with mead. Early in its production by many races the strong aphrodisiac properties of the liquor were appreciated. Mead not only made for strength, virility and length of life in folklore, but also the recreative powers were renewed.

These ideas were not confined to Mediterranean countries. The Hindus eat old honey for increasing their virility; the Hindu novice for the priesthood had to abstain from meat, women, perfumes and honey. Among our Gothic ancestors it was a custom at the marriage feast, and for a month afterwards, to feast upon mead; as a consequence, down to the present time we call the period following the wedding the honeymoon, and the French term it the lune de miel. The French consider both honey and the bee-sting to have a powerful aphrodisiac quality.

The Moors also considered honey to be a love stimulant, but Beck and Smedley, in "Honey and Your Health," contend that "from the medical viewpoint there is no basis for the assumption that honey is an aphrodisiac." However, these writers describe how the Moors turned their wedding feasts into sex orgies, at which the guests were given honey and "honey wines" until they were drunk, because they believed that honey had such qualities.

But there is an even more recent reference to the sexual-strengthening qualities of mead for the Englishman to be found in a book written by Sir Kenelm Digby in 1669, entitled "The Closet of the Eminent Learned Sir Kenelme Digbie, Kt., Opened: Whereby is

Discovered Several Ways for Making Metheglin, Sider, Cherry-Wine . . ." Under the sub-title "To Make Excellent Meathe" Digby commented:

"This Meathe is singularly good for a consumption, stone, gravel, weak-sight, and many more things. A chief Burgomaster of Antwerp, used for many years to drink no other drink but this; at Meals and all times, even for pledging of healths. And though he were an old man, he was of an extraordinary vigor every way, and had every year a Child, had always a great appetite, and good digestion, and yet was not fat."

The title of another of Digby's recipes carries much of the same implications—"An excellent way to make Metheglin, Called the Liquor of Life." He again mentions the same subject when, in giving details of "Mr. Pierce's Excellent White Metheglin," he says:

"This Metheglin is a great Balsom and strengthener of the Viscera; is excellent for colds and coughs and consumptions. For which last they used to burn it (like wine) or rather only heat it. Then dissolve the yolke of an Egge or two in a Pint of it, and some fresh Butter, and drink it warm in the morning fasting. As it comes from the Barrel or Bottle, it is used to be drunk a large draught (without any alteration or admixtion), with a toste (= a piece of toast) early in the morning (eating the toste) when they intended to dine late."

The Romans made several medicinal drinks from honey. One was composed of unfermented honey water, which they called aqua mulsa. Oxy-mel was made of honey, vinegar, salt and water, and was used not only for throat and ear troubles, but also as a salad dressing, and it continued in common use until the Middle Ages.

For nuptial occasions the Romans had a bouquet liquor compounded of honey and milk mixed with poppy juice—a drink calculated to create the utmost cheerfulness and carefree abandon. Clionomeli was made of whites of eggs and honey. The Romans had a genuine mead named hydromel, mentioned by Pliny, which they seem to have used as a medicine in much the same way that port was used by the Victorians.

"Pollio Romulus, being an hundred years of age, told Julius Caesar that he had preserved vigour of his mind and body by taking Metheglin inwardly and by using oyl outwardly," states R.B. in his "History of the Principality of Wales," printed in 1695.

It is extremely significant that the god of procreation, Priapus, whose very name came to signify, when so used, the male organ of generation, or again, a lustful man, had, according to the Roman poet Calpurnius (II, 64) honeycombs sacrificed to him.

Mead and honey would be part of the rituals connected with the Great Mother Goddess of the Romans, whose service was so intimately associated with the procreation of life. Like Priapus, Pan was a fertility god, and the nymphs were lesser divinities concerned with marriage and procreation, so we find the courtesans praying to the Great Mother, the nymphs and Pan for lovers, and using mead instead of wine for the libation at the altar.

According to the Greek poet Crinagoras ("Anthology," VI, 232), in the festival to Priapus and Pan, mead was offered in the sacrifice, and it is actually called "the ambrosia of the bees."

One can safely assume that the Satyricon or love potion with which the priestess of Priapus, in her lewd dealings with the young men in the inn, was so free, on the Vigil of Priapus, was not unrelated, in its derivation at any rate, to the sacred liquor poured out to

the god. She was certainly very angry when, despite that, and the wine and the fine antepast laid out for them, they did not come up to her expectations and commenced to nod. Honey was an important ingredient in all ancient Satyriaca: "Ad coitum irritantia terntaginem facientia." ("The Satyricon of Petronius.") Pan has been termed "the saviour of the bees" by more than one ancient writer.

According to Anglo-Saxon mythology, mead gave the gifts of immortality, poetry and knowledge. Odin drank up the magic mead in three draughts, and fled in the form of an eagle, considered then, as now, the king of birds. Poets were known as bearers of the mead of Odin, and the eagle as "the gift of Odin."

No doubt this association of mead with the gifts of wisdom, tongues and poetry included within its scope the knowledge of the past and future, since we find such an association in the account of Odin when he visited Saga, the patroness of History, and quaffed with her, from a goblet of gold, a draught of mead.

"Die Dymbolik de Bienen" (p. 230), by Glock, contains the following lines from the old poem "Runahal," which translated says:

"A drink I took of the magic mead,  
Taken out of Othrorir,  
Then began I to know and to be wise,  
To grow and to weave poems."

Both O. Shrader in "Prehistoric Antiquities of the Aryans" (p. 321) and G. L. Gomme in "Ethnology in Folklore" (p. 127 n.) adopt the view that the ancients considered the bee to be a messenger of God, so the bee thus became a sacred symbol in many religions of the ancient world. In Chaldee the actual word "bee" is the same as "the Word." It was probably these traditions and the close association between the Great Mother, and Priapus and Pan, and other pagan gods, and the connection between the bee, honey and mead, which accounts for the few references to bees and honey in both the Old and New Testaments and associated rolls.

The scribes who made the documents which comprise the Bible refer to the Great Mother as Astarte or Ash-toreth, and it may have been a matter of policy for them to avoid references as much as possible to a creature like the bee, which was involved in the rituals of religions which they condemned.

The peculiar properties of mead as probably the first alcoholic beverage drunk by man, and the medicinal and healing qualities associated with it, which have never been surpassed by the substitute liquors, must have led men of the Aryan world, and, no doubt, the white people of the Hamitic and Semetic groups, as well, to a belief in the sacred and healing character, not only of the liquor, but of the creature which bore the honey from which it was made. Hilda M. Ransome in "The Sacred Bee" (p. 134) takes the same view, that it was the mysterious qualities of mead which led to its being regarded as the drink of the gods.

It is significant that in Sanskrit the word *madhu* means not only honey and mead, but also a "sweet drink." This is clear from the following quotation from the "Rig-Veda" (VIII, 48), translated by A. Macdonell:

"I have partaken of the sweet food that stirs good thoughts, best banisher of trouble, the food round which all deities and mortals calling it honey collect together."

African natives appear to drink a honey liquor in the earliest stages of fermentation, and among the Masai it takes only six days to make. As might be expected, some of the myths about honey, bees and mead held by the Aryans and adjacent civilisations are to be found amongst the African natives, although in one instance their tradition was the opposite to that held by other folk. That is in connection with the honeymoon theme, with its feasts of mead, and Henri H. Junod, in his "Life of a South African Tribe" (I, p. 239), says the Thonga people of South Africa severely restrict the use of honey for a year after marriage!

In America the Mayas, who were a civilised people living in the Bronze Age, when the Spaniards conquered them, had a mead or metheglin of some sort. This was prepared from honey and water and flavoured with some herb. Mead is not so flavoured nowadays. The Mayas termed this beverage pulque, but the honey liquor of this name now prepared by the Mexicans is a degenerate of the metheglin made by their ancestors.

As elsewhere, this mead was considered of great importance in the life of the Maya, and had its own god—Acan. The gods of the four quarters of the world, the four *Bacabs*, were also the harvest and food gods, and were known as *Acanum*. Thus these *Bacabs* were also gods of mead.

And the same health-giving traditions given by the Aryans and others to mead and metheglin were recognised by the Mayas, but there does not seem to be any sacred association connected with these.

The ancient Greeks held that honey was an important ingredient in any diet, believing it increased the vital powers and prolonged life. On such honey diets Pythagoras lived to be ninety, Appolonius to 113, Anacreon to 115, Democritus to 109, and Hippocrates, the father of medicine, certainly prescribed honey for all those who wished to enjoy a long life. Pliny the Elder pointed to the Roman inhabitants of certain, bee-keeping areas as examples of people of long life.

G. R. Gayre, M.A., D.Sc., says in his "Wassail! in Mazers of Mead," that honey contains a large amount of fructose or laevulose. In honey this amounts to as much as 40 per cent. or thereabouts by weight, while in the grape it is only about 15 per cent. This sugar is often prescribed for diabetics in place of the cane-sugar or sucrose. No doubt this is why honey can be taken successfully by certain cases of diabetes. Colonel Gayre says he knows of at least one case where the cure is alleged to be due to the diet of honey.

Honey, like the grape, has grape sugar (dextrose); it amounts to 34 per cent. in honey. In the process of chemical change in the living cell of the human body, called metabolism, this sucrose is associated with the formation of tissues; dextrose in metabolism is connected with respiration.

Vitamins A, B, C and K are found in honey, but in commercially produced honey these are sometimes of no significance, the amounts being very small owing to over-filtration.

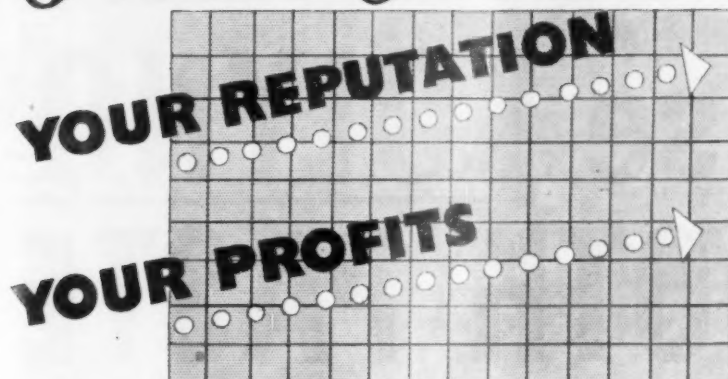
Honey and mead is particularly valuable because of the large amount of dextrose and laevulose sugars which these contain, as these, unlike the ordinary cane sugar, are readily absorbed by the human being. Cane sugar is not so easily assimilated.

The value of these sugars of the honey is seen in the case of ulcers of the stomach, which, it has been known for a long time, can be cured by the use of honey, and for which it has been tried recently in a very thorough and effective manner in Russian clinics.

E. B. Wedmore, in "A Manual of Bee-keeping" (p. 107), says that in cases of malnutrition, especially those of children, and in typhoid fever and liver troubles, honey has been found of great benefit. Tickner Edwards, in "The Lore of the Honey Bee" (p. 181), states that in all wasting diseases, and particularly in consumption, honey is one of the beneficial builders-up of the patient, a viewpoint which was held by more than one 17th century writer, as shown by the above quotation from Kenelm Digby's book.

Beck and Smedley, in their "Honey and Your Health" (p. 31-39), give some interesting medical facts connected with honey, and state that it is the best of all foods for raising the blood level. In Austria it has been proved that the blood count (haemoglobin) has been increased 8½ per cent. by one year's diet of two tablespoons of honey daily. They also point out that the Vitamin K of honey is of considerable value in cases of haemorrhage. They also say that it has the power to destroy bacteria, and that accounts for its use in surgery, where it can be used in much the same way as one would apply a tincture of iodine.

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# Proprietary Medicines — A Survey

Report Presented at the Branch Representatives' Meeting, British Pharmaceutical Conference, Aberdeen, August 31, 1955.

We are indebted to a correspondent for sending us by airmail the following most interesting survey, and take the opportunity of publishing this in an early issue.

The first instalment is presenting a Historical Survey, by H. E. Chapman, M.P.S.

Contributions, which will be published in later issues, are "A Manufacturer's View," by H. Treves Brown, B.Sc., F.P.S., and "A Retailer's View," by J. C. Bloomfield, M.P.S.

The subject for discussion at this meeting of pharmacists, representative of the Society's Branches, is "Proprietary Medicines—The Present Position."

My contribution is designed to furnish objective and factual information regarding the historical, legislative and legal aspects of the subject, and to present such data relating to the existing proprietary medicine industry as may, perhaps, provide a background for the papers of my two colleagues.

## Definitions

I think it may be helpful to start by attempting some definition of the term "proprietary medicine" as applied to preparations which are normally sold by retail to the public in response to the latter's demand. There is, in fact, no true statutory definition; the nearest is that embodied in the Pharmacy and Medicines Act 1941, where the words referring to proprietary medicines are "substances recommended as a medicine . . . sold under a proprietary designation." The definition in the abortive Proprietary Medicines Bill of 1920 (later referred to) was: "A medicine which is held out by advertisements or for use for curative or remedial purposes, and which is either sold under a trade name or manufactured by a secret process." Before proceeding, it might be well to refer very briefly to the term "patent medicine" which, not so many years ago, was generally applied to all of the remedies which we now call proprietary medicines, and is still in use. Originally, "patent medicines" were preparations which had been the subject of "letters patent" under the Great Seal of which there were a number of famous or notorious examples. Section XVI of the Pharmacy Act 1868, provided that nothing in the Act should extend to or interfere with the making or dealing in patent medicines. The expression "patent medicines" in the Act was construed by the High Court to mean a medicine protected by letters patent under the Great Seal and not to include "proprietary" medicines not so patented. The Court of Appeal also found that in the section quoted the words meant what they expressed—*prima facie*, medicines the maker or owner of which had obtained letters patent for them, and that the term did not extend, and was not intended to extend, to mere proprietary medicines.

Before leaving the subject of definition, I must refer briefly to proprietary medicines which are not advertised direct to the public, but are prescribed by the medical fraternity for the use of their patients. Such products are usually referred to as "ethical proprietaries." In that section of the industry mostly concerned with the production of this class of medicinal the term "ethical proprietary" is accepted as meaning a proprietary medicine whose sale is promoted only by advertising to the medical and allied professions. As most of what I have to say refers to medicines which do not come within this class, I leave to my friend, Mr. Treves Brown, the responsibility of dealing with "ethical" proprietaries and the important industry they represent.

## Antecedent History

In most matters, a proper appreciation of the "present position" is helped by a knowledge and understanding

of their antecedent history. For that reason, I hope that the following historical survey will not be regarded as inappropriate.

There appears to be little evidence that nostrums or secret remedies were employed to any extent in early medicine. The composition of most of the pharmaceutical preparations used by the ancient Egyptians, the Greeks and Romans, are disclosed in the medical writings of their day. There were, however, exceptions, and nearly 300 years before the Christian era, Aetius, a Greek medical writer, referred to certain nostrums which enjoyed a great vogue in his day, and for which exorbitant prices were paid. He mentions the Collyrium of Danaus, which was sold at a price of about £100 a phial, and could only be had with difficulty. Nearer home, there is evidence that a proprietary salve was in use by the legionaries in England during the Roman occupation. Seals of a Roman apothecary, used for stamping the wax which closed the ointment jars of one Caius Junius, have been found, and the wording on one of them states that Caius' salve was made with vitriolic earth for scars, and on another that the ointment was made from copper floss "for all sorts of roughness and scurf."

It may be said, however, that in England, the preparation and vending of proprietary medicines on a considerable scale did not begin until the 17th century, from which time the industry has progressively developed; it was not, however, until the first half of the 19th century that chemists and druggists became the chief retail sellers of these medicines. In the 18th century booksellers and stationers were regarded as the orthodox outlets for patent medicines and it may be recalled that Dr. Samuel Johnson introduced the originator of the celebrated Dr. James's Fever Powder to John Newbery, a noted bookseller, who then had a shop at the corner of St. Paul's Churchyard and Ludgate Hill. Newbery became the agent and part proprietor of the medicine and also the founder of the wholesale druggists' sundries house, Francis Newbery and Son, formerly of the Charterhouse, and now at Cardiff.

In the literature of the 18th century references to such proprietary medicines abound; for example, in his "Citizen of the World," Oliver Goldsmith (himself a physician) makes the Chinese visitor to London declare:

"The English are peculiarly excellent in the art of healing. There is scarcely a disorder against which they are not possessed of an infallible antidote. The advertising professors here delight in cases of difficulty. . . . You will find numbers in every street, who, by levelling a pill at the part affected, promise a certain cure. Every dead wall is covered with their names, their abilities, their amazing cures, and places of abode. Few patients can escape falling into their hands, unless blasted by lightning, or struck dead with some sudden disorder."

Earlier, Daniel Defoe, in his vivid "Journal of the Plague Year," says that, when the great scourge came: "people ran madly after every quack, mountebank, and practising old woman who had antidote or remedy to sell. Infallible preventive pills, never-failing preser-

vatives, sovereign cordials," and the like were advertised on every hand, and the sellers, Defoe tells us, reaped a rich harvest from their wares. In the "Gentlemen's Magazine," 1748, there appeared what was called a "Pharmacopoeia Emperica," a list of over 200 nostrums described as suitable for persons who could not afford to consult a physician, together with the names and addresses of the proprietors, and the prices charged for their remedies.

There is thus no doubt that, towards the end of the 18th century, the proprietary medicine trade was flourishing, and it was about this time that the Government of the day thought it appropriate to look to this industry for a contribution to the national revenue.

#### Medicine Stamp Acts

This took the form of a medicines tax imposed as part of the Budget of 1783. It was provided that all persons, except surgeons, apothecaries, druggists, or chemists, or persons "who had not had a shop three years," must take out a licence to sell medicines of any kind. In addition, a duty of 3d. had to be paid on medicines of the value of 2/6 and under; for medicines of greater value the duty was higher in proportion. For infringement of the law various fines were fixed, and for forging a medicine stamp the punishment was "death without benefit of clergy." This Act was replaced in 1785 by another measure, repealed and replaced by the Medicines Stamp Act, 1802, which, in its turn, was amended before the Medicines Stamp Act 1812, was passed. This, the principal Act, together with portions of earlier enactments, remained in force until repealed by the Pharmacy and Medicines Act 1941, which abolished both the medicines duties and the 5/- medicine-vendor's licence. The intricate and often contradictory provisions of the Medicines Stamp Acts have now only an historical and academic interest. A few years before their repeal they were described by a Judge of the High Court as "a mass of confused, obsolete verbiage." It is, however, of interest to recall what the 1812 Act, whose provisions remained in force for 140 years, set out to do. First, it imposed duty on a list of 550 preparations specified in a Schedule, which included all the then known nostrums and proprietary medicines. Second, it contained a "general charge," which made any medicine liable to duty if any expression or phraseology were used which could be construed as representing that the preparation of the medicine was a secret, or that it was a speciality of any person, or that anyone had a proprietary right in its manufacture or sale, or that it would prevent, cure, or give relief in any disorder. The "general charge" imposed liability on all preparations which were the subject of "letters patent" under the Great Seal—the real "patent medicines" already referred to—some of which still exist.

#### "Known, Admitted and Approved" Remedies

The 1812 Act provided for the exemption from duty of various classes of preparations, including "entire drugs," that is, drugs sold without admixture.

The most important exemption was in respect of what came to be known as "known, admitted and approved" remedies. This was embodied in a clause which exempted mixtures, compositions or preparations, uttered or vended by any surgeon, apothecary, chemist, or druggist, when such mixtures, etc., were "known, admitted and approved of" in the prevention, cure or relief of any disorder, malady, ailment or complaint incident to the human body.

Older pharmacists will recall that this important exemption lay dormant in the Act until the year 1903, when the late Sir William Glyn-Jones, who had given close attention and study to the Medicines Stamp Acts, came to the conclusion that there was something in them which might be utilised to the advantage of pharmacists. The High Court judgment in the case, *Farmer v. Glyn-Jones*, established the chemists' privilege to sell, unstamped, "known, admitted and approved" preparations which bore on the label the for-

mula, or a reference to an approved book containing it. For nearly 30 years the "known, admitted and approved" exemption was regarded as applying only to preparations made by or for a pharmacist to sell under his own name, but eventually the Commissioners of Customs and Excise agreed to extend the exemption to owners of advertised proprietary medicines. Under this arrangement the former advertised "proprietary medicines" became "Known, Admitted and Approved" remedies sold under "brand" names, and bearing on the label disclosure of the formula and a disclaimer of proprietary rights.

#### Development of the Industry

The real development of the proprietary medicine business began somewhere about the middle of the 19th century and continued progressively, decade after decade. This progress is indicated by the official returns of the revenue obtained from the sale of medicine stamps and licences. In the year 1841 revenue from the sale of medicine duty stamps for the whole of Great Britain was £30,290. At that time the revenue figure could be regarded as representing one-eighth of the retail value of the medicines sold, for example, 1½d. on a 1/- article, and, on this basis, the annual retail sales of dutiable medicines would have been somewhere in the neighbourhood of £244,000. In 1871 the estimated figure was £546,000; and in 1911 £2,605,160. The rate of duty was doubled in 1915, and, if the later revenue is to be taken as one-fifth of the value of retail sales, then in 1921 retail turnover amounted to £6,848,650—based on a stamp revenue of £1,369,730, the highest ever reached. The Select Committee's Report (1914) estimated the total sales of proprietary medicines of the 1/1½d and 2/9 sizes to be nearly £3,200,000. The report states "The President of the Pharmaceutical Society of Great Britain (Mr. C. B. Allen), speaking with 36 years' continuous experience as a retail chemist, informed us that the sale of proprietary remedies has very largely increased during the past ten years." More recent estimates are mentioned in a subsequent paragraph.

#### Chemists' Proprieties

The number of patent medicine licences granted in 1852 was 8379 in England and 604 in Scotland. At that time, and until the establishment of the exemption applied to "known, admitted and approved" remedies, a considerable proportion of the revenue from the sale of medicine stamps came from the very large class of dutiable medicines made and sold by the chemists themselves. From 1904 onwards many thousands of formulas for these medicines were sent for registration in "The Pharmaceutical Journal Formulary," "Pharmaceutical Formulas" and other recognised works of reference, and it is interesting to note that today in most parts of the country chemists still market their own "proprietary" medicines, some of which enjoy substantial sales. The chemist's association with the proprietary medicine business is shown in another connection. Many proprietaries which are now household words had their origin in the chemist's shop—of these many examples could be quoted. Incidentally, it is worth recalling that British pharmacists evolved numerous "ethical" proprietaries (at a time when the word was not applied to such products). Many of them, having first obtained a reputation among local physicians were, and still are, widely prescribed throughout the country.

As, towards the end of the 19th century, the proprietary medicine business expanded, the chemist and druggist was subjected to fierce price-cutting competition. The drug departments of the big stores, the grocers and the branches of multiple-shop chemists began to advertise and sell these medicines at much less than the nominal price. The era of unrestricted price cutting reached its height about 1895, in which year W. S. Glyn-Jones, then conducting his own chemist's business in East London, said: "The average chemist has either to charge fair prices for 'patents,'



#### ETHICAL PROMOTION

Actively promoted to include personal detailing, medical sampling, regular circularisations and journal advertisements.

## PETROLAGAR

REGISTERED TRADE MARK

AQUEOUS SUSPENSION OF MINERAL OIL



REGISTERED TRADE MARK

#### PRESENTATION:

Bottles of 16 fluid ounces.

*Wyeth* INTERNATIONAL LIMITED

(Inc. in U.S.A.)

Cliff St., Parramatta, N.S.W.

P/16/PB

# NEW! PETROLAGAR REGISTERED TRADE MARK FORTE

Aqueous suspension of mineral oil, 25% by volume, emulsified with agar-gel and FORTIFIED with 1.33% phenolphthalein, providing a more suitable laxative for the most stubborn cases.

#### In CONSTIPATION

*Young and old and in-between*  
**PATIENTS DO DIFFER**

- in temperament
- in general health
- in specific needs
- in the management of constipation

*The Petrolagar family now consists of THREE separate and distinct prescriptions providing a range of laxative potency adaptable to the individualized needs of each patient.*



#### THREE TYPES FOR INDIVIDUALIZED TREATMENT

- |                    |  |
|--------------------|--|
| <b>BLUE LABEL</b>  | Petrolagar Plain . . . No. 1 . . . for the average case.                   |
| <b>RED LABEL</b>   | Petrolagar with Phenolphthalein (0.3%) . . . No. 2 . . . for rapid relief. |
| <b>WHITE LABEL</b> | Petrolagar Forte (1.33%) . . . No. 6 . . . for the most obstinate cases.   |



and, as a consequence, allow his legitimate business to drift into other hands, or he has to meet the cutter on his own ground and beat him with his own weapons." This price-cutting was accompanied by widespread "substitution" of alternative products for the advertised cut-price proprietary medicines. It was the conditions then existing and the desire of all sections of the trade to remedy them which resulted in the establishment, through Glyn-Jones's initiative, of the Proprietary Articles Trade Association which, in a comparatively short time, placed the selling of proprietary medicines and other proprietary preparations on an economic basis.

The report of the Pharmaceutical Society's Committee of Enquiry (1939) refers to the extension in the sale of proprietary medicines by traders other than pharmacists and for this places upon the P.A.T.A. some responsibility. The report proceeds: "While therefore the Association has benefited pharmacists considerably insofar as it maintains the price of the articles which they sell, it has had the effect of encouraging competition from other quarters and reducing, in consequence, the proportion of the total volume of the trade enjoyed by pharmacists."

Here it may be pointed out that until 1941, when medicine stamp duty and the vendor's licence were both abolished, the clue to the number of retail outlets for proprietary medicines was provided by the official annual return of the number of medicine licences sold. As already mentioned, in 1852 the number for Great Britain was 8983. When the Select Committee reported in 1914 the figure had risen to 43,156. There were 90,000 licence holders in 1928, four years later 121,000, and 160,000 in 1940. Factors other than the attraction of protected prices were undoubtedly responsible for this great expansion in sales through non-pharmaceutical channels. The report also refers to the then recent development to meet this situation, known as the Chemists' Friends scheme which, it states, was originated by the National Pharmaceutical Union with a view to preventing the further development in the trade in proprietary medicines by traders other than pharmacists.

This movement, now represented by the Chemists' Federation, has the support of a considerable number of proprietary medicine manufacturers, most of whom are also, for price-protection purposes, members of the Proprietary Articles Trade Association, and its implications and significance to the retail pharmacist are dealt with by Mr. Bloomfield. A possibly unforeseen result of the action by chemists in withdrawing co-operation from manufacturers who found it impracticable to limit to them the distribution of their products, seems to be a noticeable tendency on the part of some of the most important manufacturers to increase progressively the number of their non-pharmaceutical retail outlets—thus accentuating the conditions which it was the object of the C.F. movement to remedy.

#### Criticism of the Industry

As the prosperity of the proprietary medicine industry increased, so, at the end of the 19th and the beginning of the present century, did criticism of abuses and evils which, it was alleged, attended the medicine business. About 40 years ago proprietary medicines as a class were being subjected to a barrage of criticism and hostility from medical and parliamentary quarters. "Secret Remedies" and "More Secret Remedies" ("What they cost and what they contain") had been published by the British Medical Association. For reasons set out in detail in "Secret Remedies," the B.M.A. considered that it would be useful, if not instructive, to make analyses of some of the secret remedies, the virtues of which were so boldly advertised. The results of these analyses were given in the pages of the two volumes published by the B.M.A. The preface of the second edition, "More Secret Remedies" (1912) said that publication of the first volume had

"perhaps done more than anything else to open the eyes of the public, the authorities, and the Legislature to the true facts in regard to the nature of such articles and of the enormous traffic that goes on in them."

#### The Select Committee, 1912

Certainly these books and the campaign of the B.M.A. had their influence on the setting up of the Select Committee on Patent Medicines which began its investigations in 1912, and issued its report on August 4, 1914. The Committee held a large number of meetings, examined numerous witnesses and its proceedings were reported at great length in the pharmaceutical press. The Committee found that there was a large and increasing sale of patent and proprietary medicines and appliances and of medicated wines; that the remedies were of widely differing characters, comprising: (a) Genuine scientific preparations; (b) unobjectionable remedies for simple ailments and (c) many secret remedies making grossly exaggerated claims of efficacy, causing injury by leading sick persons to delay in securing medical treatment. The Committee found that no Department of State and no public officer was charged with the duty of controlling the sale and advertisement of proprietary medicines in this country; that the existing law was chaotic and that successful prosecution for fraud in the advertisement and sale of secret remedies was fraught with the greatest difficulty. The Committee's report contained the following oft-quoted conclusion:

"For all practical purposes British law is powerless to prevent any person from procuring any drugs or making any mixture whether potent or without any therapeutical activity whatever (so long as it does not contain a scheduled poison), advertising it in any decent terms as a cure for any disease or ailment, recommending it by bogus testimonials and the invented opinions and facsimile signatures of fictitious physicians, and selling it under any name he chooses—on the payment of a small stamp duty—for any prices he can persuade a credulous public to pay."

The Committee's main recommendations are referred for later.

#### Proprietary Medicines Bill

Owing to the outbreak of war nothing was done to implement by legislation the recommendations of the Select Committee until 1920. In that year the Proprietary Medicines Bill, sponsored by the then Minister of Health, Dr. (later Lord) Addison, was introduced as a Government measure in the House of Lords. Its object was to give effect to the recommendations of the Select Committee. It contained no provisions which were not specifically recommended by the Select Committee, and included all their more important recommendations so far as they fell within the province of the Ministry of Health. The definition in the Bill of "proprietary medicine" has already been quoted. Provision was made for the establishment of a register of proprietary medicines and appliances, and the owners thereof, and the sale of any unregistered proprietary medicine or appliance was prohibited. The Minister of Health was empowered to remove from the register any injurious medicine or appliance, but the owner was given a right of appeal to the High Court. In accordance with the recommendations of the Select Committee, certain practices, chiefly in connection with advertisements, which the Committee considered undesirable were prohibited. The Bill provided for the disclosure of the alcoholic content of the medicine, prohibited the sale of alleged cures for cancer, consumption, lupus, deafness, fits, epilepsy, diabetes, paralysis, locomotor ataxy, rupture and diseases peculiar to women. The numerous regulations which the Minister was empowered to make included one requiring the disclosure on the package of the name and quantity of any poisonous or dangerous drug forming an ingredient.

The Proprietary Medicines Bill, 1920, met with strong opposition from the industry and some of its provisions

were opposed by the Council of the Pharmaceutical Society and the Executive of the North British Branch. The latter considered that the provisions of the Bill went far beyond the reasonable suppression of any existing evils and would seriously interfere with the just rights of pharmacists in the ordinary carrying on of their business, as well as the rights of the customers in obtaining such drugs and remedies as they desired to purchase. The Bill was withdrawn, as was a Private Member's Bill on similar lines introduced in 1931. Another private measure, the "Medicines and Surgical Appliances (Advertisements) Bill," was introduced in 1936, but aroused little interest and was not proceeded with.

At the Conference of Delegates from the Branches of the Pharmaceutical Society held at the meeting of the British Pharmaceutical Conference, at Bath, in 1924, the Vice-President of the Society, Mr. Philip F. Rowsell, addressed the meeting on "The Control of Pharmaceutical Specialities." Mr. Rowsell reviewed the findings of the Select Committee on Patent Medicines, referred to the 1920 Proprietary Medicines Bill and to the fact that the operation of the National Health Insurance Act had not resulted in a reduction in the sale of patent medicines—but exactly the reverse—and said that one of two courses must be adopted; either accept the conditions laid down in the 1920 Bill or make it incumbent on manufacturers to disclose on their labels the composition of the article. It would also be necessary to set up some machinery for controlling the advertising of the medicines. Sir William Glyn-Jones, in the course of his survey of the subject, said that there were abuses of the law in connection with proprietary medicines which at present there was no power to prohibit. He maintained that it was the business of the Pharmaceutical Society with its experts to come to the help of the authorities and try to apply remedies which would work upon lines which would be consistent with the welfare of the Society as well as the public. The resolution "that the subject be referred back to the Pharmaceutical Council for further consideration and reported to the Branches" was carried unanimously. The "further consideration" took a long time!

#### Another Select Committee

Criticism of the operation of the medicine stamp duties led to the appointment, in 1936, of a Select Committee to consider and report on these duties. The Committee recommended that the existing Medicines Stamp Acts should be repealed and that a new and lower rate of duty should be imposed on a much wider range of articles. Their report included the statement:

"Strong opinions were expressed by certain witnesses in the course of enquiry that some form of control of the medicine trade was desirable, to safeguard the public from fraudulent exploitation. Authoritative statements were made to the effect that people (largely the poorer and less well-educated) spend more money than they can afford on remedies of little or no efficacy, with an accompanying indirect danger to health as a result of their not seeking medical or surgical treatment in time."

This Committee, which, it should be noted, reported less than 20 years ago, said that should control of the trade in medicines be deemed desirable for the protection of the public, they believed the best method of achieving this would be by a system of examination and registration of all advertised medicines and appliances. The next step was in 1939 when the Chancellor of the Exchequer provided in his Budget for the repeal of the medicine stamp duties. As his proposals were accompanied by no recommendations for regulating the trade in medicines or compensating the chemists, who would have been most prejudiced by the repeal, there was noticeable opposition in Parliament to the proposal, and the clause in the Finance Act by which it was to have been effected was withdrawn.

#### Pharmacy and Medicines Act 1941

In the interval between the 1939 Finance Act and the summer of 1941 a measure of agreement between the various trade parties interested in the subject was reached, and in July, 1941, the Minister of Health introduced a Pharmacy and Medicines Bill which, it was claimed, reflected that agreement. It was wartime and the Bill passed through its parliamentary stages with unusual rapidity and in its progress was subjected to no material amendment. The purpose of the Pharmacy and Medicines Act 1941 was "to repeal the medicine stamp duty and the associated licence duty, to prohibit advertisements relating to certain medical matters and at the same time to regulate the sale of medicines, and to effect some minor amendments to the Pharmacy and Poisons Act 1933." Section 8 of the Act makes it an offence to take part in the publication of any advertisement calculated to lead to the use of any article for the treatment of Bright's disease, cataract, diabetes, epilepsy or fits, glaucoma, locomotor ataxy, paralysis or tuberculosis. Section 9 prohibits advertisements calculated to lead to the use of articles for procuring the miscarriage of women. Section 11 forbids, in general, the retail sale of substances recommended as medicines without disclosure on the container, wrapper or label of their composition or active constituents. Section 14 repealed both the medicine stamp duty and the associated licence duty as from September 2, 1941. In connection with the retail sale of proprietary medicines, Section 12 is regarded as the most important provision, as it enabled what the Minister described as the "normal channels" to continue to be used for the sale of proprietary medicines.

The Pharmacy and Medicines Act 1941, thus incorporated some of the provisions of the 1920 Bill, for example, the prohibition of advertisements for certain ailments and diseases, but its main effect was to make proprietary medicines, bearing disclosure of composition, free for sale, without duty or licence, in any shop.

#### Other Statutory Controls

At the present time the only other statutory controls to which proprietary medicines are subject arise from the relevant provisions of the Pharmacy and Poisons Act, 1933, in respect of those which contain poisons; the Venereal Diseases Act 1917, which prohibits the advertising in any way of any preparation or substance of any kind as a medicine for the prevention, cure or relief of venereal diseases; the Cancer Act 1939, which prohibits the publication of any advertisement which refers to any article in terms calculated to lead to its use in the treatment of cancer; the Food and Drugs Act 1938, and the Amending Act of 1954, which removes, in proceedings for selling to the prejudice of the purchaser a drug "not of the nature, substance or quality" demanded, the former defence that the article supplied was a proprietary medicine and sold in response to a request for that medicine; and the Merchandise Marks Act 1953, which extended the provisions of the law protecting the public against false and misleading trade descriptions of goods—provisions which may, if necessary, be applied to advertisements and labels of proprietary medicines.

The Trade Marks Act 1938 eliminated a practice which had developed to a considerable degree in the preceding years. There had grown up quite an industry in the making and selling of medicines purporting to be compounded from the published formula of well-known products and offered at a lower price as "sold to compete with" the advertised and named preparation. The 1938 Act prohibited the use, in this connection, of reference to the manufacturer's trade mark and brought this form of competition to an end.

#### Voluntary Control

Supplementing the statutory provisions referred to above, there is now a system of voluntary control of claims made on behalf of proprietary medicines by the

manufacturers and, in respect of claims and references made in Press advertising, by the newspaper proprietors and the advertising organisations. The British Code of Standards in Relation to the Advertising of Medicines and Treatments has the approval and support of the Proprietary Association of Great Britain (representing the manufacturers), the Newspaper Proprietors' Association, the Newspaper Society, the Periodical Proprietors' Association, the Advertising Association, the Incorporated Society of British Advertisers, and the Institute of Incorporated Practitioners in Advertising. The British Code of Standards states that "the harm to the individual that may result from exaggerated, misleading or unwarranted claims justifies the adoption of a very high standard," and urges newspapers and other advertising media not to accept advertisements in respect of any product or treatment from any advertiser or advertising agent who disregards the provisions of the Code in any form of advertising or publicity relating to that product or treatment. As recently as May, 1955, the Parliamentary Secretary to the Ministry of Health paid tribute to the way in which the Press controlled the publication of undesirable medicine advertisements, and said that the strictness with which members of the Newspaper Proprietors' Association honoured the Code and the high ethical standards they impose were shown by the very rare case of abuse.

The Independent Television Authority has accepted the "British Code of Standards" as the basic standard for the advertising of medicines. The I.T.A. prohibit, in the advertising of medicines and treatments, any statements, gestures or representations that give the impression of professional advice or recommendations by doctors, dentists, nurses, midwives, etc.

Today the organisation representing the proprietary medicine industry is the Proprietary Association of Great Britain. The Proprietary Association lays down and enforces stringent rules of conduct on the part of its members and claims to have achieved, and to maintain, the standards which the Select Committee of 1912 demanded. One of its principal activities is the exercise of control over the advertisements of its members, for whose guidance and information it issues its own Code of Standards of Advertising Practice. The Code has been adopted as the basis for the British Code of Standards which, as mentioned above, is operated by the various Press organisations, and to which the poster-advertising companies adhere. "Members of the Association," the Code states, "should bear in mind that, in advertising, they owe a duty to the public and to their fellow members; and, consequently, advertisements should be of such a character that they do not mislead the public nor contain statements which would justify criticism of proprietary articles as a whole."

Paragraph 1 of the Code demands that "no advertisement shall contain any matter which in any way, directly or by implication, departs from truth as to the character of the product or its suitability for the purposes for which it is recommended." It continues: "No advertisement shall contain any matter which can be regarded as a holding out for the prevention, cure or relief of serious diseases which should rightly be under the care of a registered medical practitioner." The Code also forbids any offer, direct or by implication, to guarantee to cure a specific ailment, forbids any "fear-creating" advertising and stipulates conditions for the use of testimonials. A result of all this voluntary censorship has been to render no longer applicable most of the strictures contained in the report of the Select Committee on Patent Medicines.

#### Views of the Society's Council

In 1947 the Council of the Pharmaceutical Society represented to the Ministry of Health that action should be taken to bring under statutory control the sale and advertising of proprietary medicines. A register of medicines, an advisory committee with a registrar, the

prescribing of standards for medicines and advertisements were among the "elements of control" advocated. So far no statutory effect has been given to the Council's recommendations.

The statement upon matters of professional conduct issued by the Council for the guidance of pharmacists and corporate bodies carrying on business under the Pharmacy Acts enjoins, *inter alia*, that no display material either on the premises, in the Press or elsewhere, should be used by a pharmacist in connection with the sale to the public of medicines or medical appliances which contains misleading or exaggerated statements or claims; the word "cure" in reference to any ailment or symptoms of ill-health; a guarantee of therapeutic efficacy; an appeal to fear; any reference to a medical practitioner or a hospital or the use of the terms "doctor" or "nurse" in connection with the name of a preparation not already established; a reference to sexual weakness, premature ageing or loss of virility; a reference to complaints of a sexual nature in terms which lack the reticence proper to the subject.

#### Present Scope of the Industry

It is difficult to provide even an approximate estimate of the present capital value of the industry concerned with the manufacture and distribution of proprietary medicines, composed as it is of various branches and sections. In 1936 it was stated by representatives of the industry to the Select Committee on Medicine Stamp Duty:

"During the last 60 or 70 years there has been built up a very large industry. Many millions of pounds have been invested as capital in these businesses . . . and it is estimated that the capital employed in the actual industry is largely in excess of £100,000,000. The industry directly employs a large number of work people and indirectly provides employment in other trades. . . . Wholesale houses all over the country employ large staffs engaged in distributing proprietary medicines, and these medicines are in turn sold in upwards of one hundred and fifty thousand retail stores in Great Britain alone. They are also exported to foreign countries and to the Colonies and Dominions."

The Committee, referring in their report to the estimated retail turnover of the proprietary medicine trade, said "it would appear that the annual turnover might reach the figure of £20,000,000." There is reason to believe that the scope and capital value of the industry today is largely in excess of the estimate given in 1936.

#### Advertising

The 1912 Select Committee mentioned that the amount spent annually at that time in advertising proprietary medicines was estimated to be £2,000,000. The April, 1955, "Statistical Review of Press Advertising," estimates that in 1954 newspapers and magazines carried £4,506,623 of medicinal products advertising. This figure excludes the £141,000 spent in the technical and trade Press. The trend in the type of medicinal products in most demand today is indicated by the fact that, of the total sum named, £745,440 was spent on analgesics, £594,730 on laxatives, £520,301 on indigestion remedies, £240,897 on cough and cold remedies, and £191,670 on vitamin preparations. "Unclassified medicinals" advertising amounted to £652,550. The "Review's" survey of the subject refers to the rising trend of overall expenditure on medicinals, the figure quoted showing an increase of 15.84 per cent. on the 1953 total. To Press advertising must be added the sum, whatever it may be, spent on radio, poster and other forms of advertising.

#### Estimated Sales

With regard to present day total sales of advertised medicines, estimates suggested to me by "well-informed sources" vary considerably. Purchase Tax returns on drugs and medicines provide no accurate data, as so many classes of products regarded and sold as proprietary medicines are exempt from tax.

(Continued on page 1043.)

**STOCK, DISPLAY and SELL**

# **DEXSAL**

**It is "Chemists Only"**

**By Contract with YOUR Guild**

**COMPOSITION:** A pleasant, effervescent granular preparation containing 34% of pure medicinal glucose.

**INDICATIONS:** Acidosis, morning sickness, bilious headache, nausea, alcoholic after-effects. Specially suitable for biliousness in children.

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**HEAD COLDS,  
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 HAY FEVER.**

**BOOTS PURE DRUG CO. (Aust.)  
 PTY. LIMITED**

Sydney, Brisbane, Melbourne,  
 Adelaide, Perth.

# The A.P.F. 1955

## Successful Display at Medical Congress

Very considerable interest was evinced in the new A.P.F. by medical practitioners who attended the Ninth Australasian Medical Congress held at the University of Sydney from August 20 to 27, 1955.

The A.P.F. Exhibit and publicity were arranged by the Council of the Pharmaceutical Society of N.S.W. under direction of the President, Mr. B. Fegant, who had conferred in Melbourne with representatives of the Association beforehand.

Mr. Warwick Read, of Sydney, and Mr. F. H. Burton, loaned for the week by the Victorian Society, were in attendance at the Exhibit throughout the Conference period.

The following report was submitted by Mr. Burton:—

**Location.**—Stand No. 85, which had been vacated by Knoll Laboratories, who had moved to another site, was made available by Dr. V. M. Coppelson, Chairman of the Trade Exhibition Committee.

**Duration.**—The exhibition was open each day from 9 a.m. to 5 p.m. from Saturday, August 20, to Friday, August 26 (both dates inclusive).

**Publicity.**—As a medium for publicising the issue of the 1955 edition of the A.P.F., the exhibit was distinctly successful. The A.P.F. exhibit was modest and dignified in conception, but attracted considerable attention, quite out of proportion to its size.

Doctors and specialists from many fields showed interest in the new publication, but predominant interest was shown amongst ophthalmologists and dermatologists.

**Sales.**—Under Section 13 of the "Conditions governing the occupation of space at the Trade Exhibition," direct "over the counter" sales were not permitted, but it was permissible to book orders.

The total number of orders for A.P.F.'s booked during the exhibition was between 90 and 100. Of these 50 or more were direct from the A.P.F. stand, 32 were through Messrs. Angus & Robertson, and the remainder were through Messrs. Hannam's Ramsay (Book Dept.) (These figures are approximate.)

It is of interest to note that Angus & Robertson's total number of book orders for the whole period of the exhibition was 96. Thus every third order booked by them included or consisted of an A.P.F. 1955.

**Further Publicity.**—The A.P.F. was given prominence on I.C.I. stand, and was also displayed and made available for reference on the following stands:—

British Schering.  
Calmic Ltd.  
Cleveland S. Lennon.  
D.H.A.  
Faulding's.  
Frederick Stearns.  
Grahame Book Supply.  
Hannam's Ramsay (Book Section).  
May & Baker.  
Nicholas Pty. Ltd.  
Parke, Davis & Co.  
Sigma Co. Ltd.

**Brochures.**—The brochure introducing the 1955 A.P.F. was available from all sources where the

A.P.F. was displayed, and it is estimated that 1000 or more of these were distributed during Congress. Distribution of brochures outside the confines of the Trades Exhibition was not permitted.

**A.P.F. Stand.**—The display consisted of a representative selection of preparations from the new A.P.F., together with brochures and samples available to medical men.

Suitable showcards were displayed against a background of red velvet. The samples were prepared by Messrs. Fauldings Ltd., and were well presented and bore printed labels.

The following samples were available for distribution:—

Applic. Dimethyl Phthalat. . . . .	5i
Conspers. Hydroxyquinolin . . . . .	5i
Cremor. Aminacrin. Aquos. . . . .	5i
Gutt. Sulphacet. mitis . . . . .	5ii
Liq. Cetrimid Conc. . . . .	5i
Mist. Acid Acetylsal et Codein Co. . . . .	5i
Mist. Phthalylsulphathiazol. . . . .	5i
Mist. Sod. Cit. . . . .	5i
Ung. Macrogol . . . . .	5i

In addition, an attempt was made to link up with manufacturers whose ethical products conform to the A.P.F. monographs or formulae. Amongst those displayed were Duocillin, Megimide, Daptazole, D.H.A.-245 and Cetavlon: the latter since Cetrimide is used con-



A.P.F. Stand with Mr. F. H. Burton in attendance.

siderably in the formulation of creams, buffer vehicles, ophthalmic vehicles and solutions throughout the formulary, and it was felt that a reciprocal gesture for the generous I.C.I. display of the A.P.F. would be appreciated.

**Photograph.**—The exhibit was photographed, and it is expected that a full-size copy will be available shortly.

**Losses.**—Some 10 A.P.F.'s were lost from various stands during the exhibition. This was common to most exhibitors, some of whose bottles of 500 and 1000 tablets were "mistaken" for samples.

At the close of the exhibition, exhibitors were invited to submit for publication in "The Medical Journal of Australia" a brief summary of their exhibit. This matter was left in the capable hands of Mr. H. W. Read.

To Mr. and Mrs. Read, and to the President, Vice-President, Treasurer and Secretary of the Pharmaceutical Society of New South Wales for their generous help and hospitality during my stay in Sydney, I would like to express a very sincere "Thank you."

#### Mr. Read's Report

The 1955 edition of the Australian Pharmaceutical Formulary was displayed, and samples of A.P.F. products were shown and distributed to conference members by Mr. Fred Burton, of Melbourne, and Mr. H. W. Read. The display was situated in the Trade Exhibition, Pharmaceutical Section. The Exhibition was of a high standard, and well patronised by not only the doctors, but also medical students, nurses and quite a few pharmacists.

Keen interest was displayed in the A.P.F., particularly from the Eye and Skin specialists, and the new monographs on Amiphenazole and Bemegride created a lot of interest, particularly as two papers were read on them at the Conference. Both Mr. Burton and Mr. Read felt the display was worth while and a boost to the A.P.F. The doctors seemed more at home discussing the A.P.F. than being waylaid with copious ethical propaganda. Comments on the A.P.F. in general were favourable, particularly the set-up of the new volume. Lack of Bismuth mixtures caused surprise comments.

To give the A.P.F. added publicity it was decided to ask various ethical firms, 13 in all, to display the A.P.F. and Brochures on their stand. The idea was an undoubted success as regards publicity.

### THE ANTHRACENE PURGATIVES

Of the various types of purgatives in general use, perhaps the most valuable is the group known as the anthracene purgatives; sometimes called the emodin purgatives because their active constituents are anthracene derivatives, of which emodin—trioxymethyl-anthraquinone—is the most important. In this group are included rhubarb, aloes, senna and cascara. The anthracene group is usually combined with two atoms of oxygen to form anthraquinone, although it is occasionally combined with other groups to form emodin and other substances.

In the crude drug it is also found in combination with sugars to form glycosides, which in themselves are inactive until they are split by bacterial enzymes in the colon, thus releasing the active emodin. This group of purgatives acts only on the large intestine, and does not affect the motor activity of the small intestine, recent investigations having shown that the active principles are transferred to the colon by the pelvic circulation and their effects produced by stimulation of Auerbach's plexus.

This plexus, or network of nerves, represents the terminal portion of the vagus—the tenth cranial nerve—which plays so great a part in the control of most of the organs of the body. Stimulation of the vagus

increases the muscular tone of the intestine and renders movement more active. Auerbach's plexus lies between the circular and longitudinal muscle coats of the intestine, and as axons from it penetrate to the surface of the mucosa, they are affected either by the mechanical pressure of the food mass or chemical stimulation, and thus the muscular layers are stimulated into activity. Contraction occurs in the gut above the site of stimulation, whilst relaxation takes place below it, so causing the forward propulsion of the contents. Thus the anthracene purgatives by initiating such a neuromuscular reflex simulate normal peristaltic movement, which is, of course, the ideal way of emptying the bowel.

It has been demonstrated that when extracts of senna have been administered to cats either by intravenous or intramuscular injection, they are equally active as purgatives. Moreover, they also act when introduced into the small intestine which has been closed distal to the site of introduction; all evidence which confirms the above outlined theory of its action. There is a latent period following administration which varies to some extent, but is usually about six to eight hours, due to the slow rate of breakdown of the glycoside in the gut. Emodin itself acts after only 30 minutes, but is unsuitable because of its speed and evanescent action.

It is satisfactory to note the interest that has been shown in the pharmacology of the anthracene purgatives in recent years, as this branch of pharmacology is in need of a sound scientific basis, although there are many other items in the vegetable materia medica about which the same might be said. Some interesting work in this connection was carried out in the U.S.A. in 1953 by Hubacher and his colleagues in an attempt to correlate laxative action with chemical structure.—*The Retail Chemist*, April, 1955.

### AMULETS

The discovery during stocktaking of two iodine lockets set me musing on the credulity of mankind, and at the same time revived memories of an earlier locket which relied on camphor for its wizardry. I can recall very clearly the window of a particular pharmacy into which had been tipped several hundreds of lockets of the camphor kind, in blue, green, red and gold, and there can have been few school children who did not at that time find themselves in the aromatic atmosphere of warm camphor compounded with slate-pencil. How those metal containers, brightly coloured and complete with their contents, could be sold for one penny each must remain a mystery! O. Henry, in his diverting "Let me feel your pulse," tells of the handing of a prescription to a druggist, who announced that the price for an ounce bottle would be \$2.87, whereupon the patient asked for a piece of wrapping cord, made a hole in the prescription, ran the cord through it, tied it around his neck, and tucked it inside. "All of us have a little superstition," he said, "and mine runs to a confidence in amulets." Medical history shows that the amulet was credited with great powers, and few notable families were without a charm of some kind. One of the most famous was that known as the Lee-penny, which was said to have been brought back from the Crusades by Sir Simon Lockhart of Lee. Sir Walter Scott made use of this amulet in *The Talisman*, and in his introduction to the novel he tells of its use, both as styptic and febrifuge. Even in Scott's lifetime the Lee-penny was used as a cure for the bite of a mad dog. The talisman consisted of a pebble inserted in a coin, and all that was necessary was to dip the coin into the water that was to be used for the cure. The legend is as picturesque as the red stone in its mounting.—*"The Chemist and Druggist,"* May 21, 1955.



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# The Women's Section

Correspondent: Miss A. K. Anderson

## THE LADIES AND A.N.Z.A.A.S.

Melbourne Meeting, August, 1955

Of the 50 visitors who came to Melbourne for Section "O" of the 31st A.N.Z.A.A.S. meeting, 19 were ladies, two of whom—Miss Evelyn Hurst (Tasmania) and Mrs. B. Stahel (New South Wales)—had qualified at the Victorian College of Pharmacy, and so were returning home.

On the eve of Congress, the President of Section "O," Mr. S. E. Wright, of Sydney University, with Mrs. Wright and all visiting delegates, were welcomed at the College by the Dean, Mr. A. T. S. Sissons, and Mrs. Sissons. This was a delightfully informal function, held in the College Museum, which had been decorated with flowers by the ladies' committee. The ladies also provided refreshments during the evening. The retiring President, Mr. R. G. Smith, and Mrs. Smith, assisted in welcoming our visitors from other States and New Zealand.

Wednesday, August 17, was the opening day of the Congress, and began with a general assembly at the University in the morning. The President's reception was held in the Union House in the afternoon, although the retiring President, Sir Keith Rigg, was unable to travel from New Zealand for the occasion.

In the evening, in the Melbourne Town Hall, the President's address was given by the newly elected President of A.N.Z.A.A.S., Professor R. v. d. R. Woolley (Commonwealth Astronomer and Astronomer Royal Elect).

Sectional meetings commenced on the morning of the 18th, and Section "O" opened with Mr. S. E. Wright's presidential address. The programme included 31 papers, 2 symposia, and a discussion on "The Changing Scene in Hospital Pharmacy."

Ten ladies presented papers on Pharmaceutical Science—Miss D. K. Large, of Sydney (a Vice-President of Section "O"), Misses M. Roberts, B. Aldrich, J. Pennefather, J. Harrison, A. W. Stafford and H. Simon, all of Sydney University, and Misses Dawn Sayers, Nancy Ganderton, and Janet Manning, of the Melbourne College.

A luncheon at "Chevron," St. Kilda road, was arranged for the ladies on Thursday, the 18th, and guests included Mrs. Cameron, wife of the Minister of Health; Lady Clunies-Ross, Lady Burnet, Miss Myra Roper, Principal of University Women's College; Mrs. Thorp, wife of Professor R. H. Thorp; Mrs. Shaw, wife of Professor Frank Shaw; and Mrs. Stanton, wife of Dr. Byron L. Stanton, senior lecturer at the Victorian College of Pharmacy.

Guests and delegates were received by Mrs. A. T. S. Sissons, Mrs. R. G. Smith and Mrs. S. J. Baird. After leaving "Chevron," several of our visitors attended an "At Home" at the University Women's College.

This, Thursday, was the evening of the Symposium on the new A.P.F., which was preceded by a buffet tea at the College, arranged for the convenience of those attending sessions and remaining in the city for the Symposium. In the pharmacy laboratories, under the guidance of Mr. W. Titcher, Victorian students had arranged a fine demonstration of A.P.F. products.

On Friday, members of the ladies' committee drove our visitors on a tour round

Melbourne, taking in the picturesque boulevard along the Yarra River, and including such places of interest as Kooyong Tennis Courts, the Olympic Games sites and Government House. By special permission, we were able to inspect at leisure the gardens of Government House, which were at their best. Leaving here, we visited the Shrine of Remembrance, and then drove to the Royal Empire Society in Queens road, where Mrs. Sissons entertained us at afternoon tea in the lovely ballroom. At night many of the ladies attended the public lecture in the Melbourne Town Hall. This was delivered by Professor Sir Macfarlane Burnet.

So far we had been greatly favoured with good weather, but heavy rain fell during Friday night and early Saturday morning. It was therefore with some apprehension that we met in the city for a day trip arranged by and through the courtesy of Nicholas Pty. Ltd.; but the rain ceased, and a fine day developed before we left on our journey. Our first stop was at Croydon, where we had morning tea at "Glenbrae," the distinctive English-style home of Mr. and Mrs. R. G. Smith. The delightful garden, which sloped away from the house, and the view of the Dandenongs were greatly admired, and added enjoyment to the tea, which on so clear a morning Mrs. Smith served out of doors. Leaving "Glenbrae," we were driven to Merrindale, a few miles away, where we visited the recently established Biological Research Station of I.C.I. In the propagating houses and laboratories, methods of testing plants with various pesticides and fungicides were explained to us.

From here we went on to Sassafras, to the beautiful "Burnham Beeches," home of the late Mr. A. M. Nicholas, and now being developed by his firm as a Biological Research Institute. The lovely reception rooms on the ground floor have been left unchanged, and here we were welcomed and served with a delightful luncheon. On visiting the newly completed laboratories on the first floor, we were surprised to find what little alteration had been necessary in the conversion of the rooms—and already in the basement were large refrigerators and a theatre or projection room, which will be great assets in the proposed scheme. As a breeder of dogs, the late Mr. Nicholas



Left to right: Mrs. A. T. S. Sissons; Miss M. McNamara (Vic.); Mr. R. Dash (N.S.W.); Miss J. Harrison (N.S.W.); Miss B. Aldrich (N.S.W.).

had several wired-in enclosures built, and these are now being used for laboratory animals, one enclosure having been wired in at the top expressly for cats. Guinea pigs, rats and rabbits are well cared for, and greatly attracted the ladies. The trees at "Burnham Beeches" and the views are magnificent, and we had time to visit the artificial lake with its lovely little Chinese bridges. We left at 4 p.m., arriving in Melbourne at about 5.30.

A 7 p.m. buffet dinner, arranged by the Pharmaceutical Society at the University Union, was attended by over 200, and was an excellent opportunity for our visitors to meet many local members of the pharmaceutical profession.

On Sunday the excursion was to Gisborne and Mt. Macedon, with lunch at Woodend. After lunch we drove across to Bacchus Marsh. By then the day had cleared, and we enjoyed a fine sunny afternoon. The procession of our 23 cars winding through the hills was a most impressive sight. Gisborne, Woodend and Bacchus Marsh are interesting and picturesque townships, with reminders of former coaching days. The private gardens on Mount Macedon were looking most attractive. From the Marsh we made a leisurely return to the city, arriving home about 5 p.m.

That the day passed without a hitch and proved so very enjoyable was due to the very detailed planning of Messrs. Hull, Johnson and Long, members of Council, who arranged the excursion.

On Monday visitors to the conference were guests of the Premier at a 5 o'clock reception, held in the Royale Ballroom, Exhibition Buildings. Several of the ladies later attended the Symposium on Colour Film at the College of Pharmacy.

The entertainments programme concluded with a theatre party at Her Majesty's Theatre on Tuesday evening, when the Old Vic. Company, with Katharine Hepburn and Robert Helpmann, played "The Taming of the Shrew."

Wednesday, August 24, brought to a close the 31st A.N.Z.A.A.S. meeting. Members met at the College in the morning for the final session, and an inspection of the Commonwealth Serum Laboratories in the afternoon concluded the programme and a very memorable week.

Ladies from other States attending Section O Melbourne meeting, A.N.Z.A.A.S., included:—

Adelaide: Mrs. W. Cotterell, Mrs. R. Anderson.

Sydney: Mrs. B. Fegent, Mrs. R. H. Thorp, Mrs. S. E. Wright, Miss D. Large, Mrs. L. W. Smith, Mrs. Skott, Mrs. Pollard, Mrs. Stahel, Mrs. Johnston, Miss B. Aldrich, Miss J. Harrison, Miss Pennefather, Miss M. Roberts, Miss M. Simon, Miss A. Stafford.

Hobart: Miss Evelyn Hurst.

#### Ladies' Social Committee (Victoria)

The ladies responsible for this very completely planned and highly successful programme and the happy atmosphere of Conference Week were:—Mesdames S. J. Baird, P. Crawford, N. C. Manning, E. E. Nye, A. T. S. Sissons, R. G. Smith, I. Thompson; Misses Braithewaite and Witt.

—(I.H.N.).

#### MONTHLY REPORTS

Congratulations to the youngest of our State Associations—The Women Pharmaceutical Chemists' Association of South Australia—who have been asked to appoint a representative to the National Council of Women Standing Committee on Health. It is good to know that a comparatively new Association is being recognised as a power in the community, and we are pleased that women chemists are being recognised as playing an important part in any health schemes of the country.

#### THE WOMEN PHARMACEUTICAL CHEMISTS' ASSOCIATION OF VICTORIA

On September 1 a general meeting was held at the College, when Miss Smalley, the President, welcomed members, new members, and gave a special welcome to Miss Kathleen Jones, who has recently arrived in Victoria from England.

Miss Smalley then introduced our guest for the evening, Mr. Borowski, a chemist from I.C.I., who had very kindly made films available to us for the evening. Mr. Borowski showed a very interesting and lovely colour film on Dyes; Pay Off in Pain (drug addiction in U.S.A.); Toronto Symphony (a musical film on the Toronto Symphony Orchestra); and finally a beautiful colour travel film Wings Over Italy.

Our Vice-President, Miss K. Keogh, proposed the vote of thanks to I.C.I. and to Mr. Borowski for giving us a most interesting and delightful evening, which concluded with supper served in the Museum by the Committee.

At our October meeting our guest speaker will be Dr. Jean Littlejohn, whose subject will be "Deafness in Children." Dr. Littlejohn feels that pharmacists should be able to help any mothers who require it by advising simple ways of telling whether a small child may be deaf or not, and recommending proper medical attention if necessary. As Dr. Littlejohn has a clinic for very young deaf children, her talk should prove of great interest.

#### THE ASSOCIATION OF WOMEN PHARMACEUTICAL CHEMISTS OF QUEENSLAND

On July 1 our general meeting was held in the Lyceum Club Rooms, and was opened by Mrs. Carlson, who undertook the office of President for the evening during Miss Everett's absence.

Mrs. Carlson began the meeting by reading a report of successful students in the recent Final Examination held in June. The 11 ladies successful in this Examination include: Misses B. C. Begg, W. E. Bell, W. E. Brand, A. V. Burrows, H. T. Dwyer, J. M. Garbutt, V. E. King, A. M. Millican, W. T. Murphy, A. M. Ross and M. V. Skipper. We extend to these successful candidates our good wishes for a happy and successful career in pharmacy.

The minutes of the previous general meeting were then read, followed by the correspondence and the Treasurer's report, the latter revealing an amount of £14/14/- so far donated to the Enid Underwood Memorial.

As Mr. Storrar, of D.H.A., has received a transfer to Sydney, it was proposed that a farewell token be given to Mrs. Storrar in the form of an afternoon tea, to be held at Rows on September 6. We wish Mr. and Mrs. Storrar continued happiness in their new surroundings, and trust we shall hear from them quite frequently.

We are very sorry to be losing a member of our Association in Miss Rena Whitehead, who recently received an appointment to a position in Suva. Miss Whitehead leaves early in September, and expects to be away for a period of two years or more. During her very long, helpful and efficient occupancy of the office of Treasurer, Miss Whitehead has proved her great value, and needless to say we shall all miss her very much. However, we wish Miss Whitehead every happiness and success in her new position, and can assure her of an eager "welcome home."

With regard to our annual Xmas party, it was decided to make a tentative booking at Manhattan Gardens for December 1.

Mrs. Carlson then expressed how pleased we all

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JM27/FP

were to see Mrs. Collins (formerly Betty Lang of Sydney) at the meeting, which then closed at 8.40 p.m.

Supper was served, and the evening concluded with the playing of records brought along by some of our members.—P. Wilson, Hon. Secretary.

#### **WEST AUSTRALIAN WOMEN PHARMACISTS' ASSOCIATION**

The annual dinner of the Association was held at the Adelphi Hotel on September 6.

The red lounge was gaily decorated with masses of daffodils, and the President, Miss Eula Gray, received members and associates.

The guest of honour for the evening was Mrs. R. I. Cohen, wife of the President of the Pharmaceutical Society.

After dinner, Association badges were presented to Ruth Baird, Joan Scull, Brenda Cleave, Tess Sheedy, Kathleen McGuckin and Judith Norrish.

Greetings from absent members included one from our founder, Miss Vida Garcia, who is holidaying in Sydney.

A delightful musical programme concluded a very happy evening.

#### **THE ASSOCIATION OF WOMEN PHARMACISTS OF TASMANIA**

The annual meeting of the Association was held at the home of Miss M. Williams, President, 35 Burnett street, North Hobart.

Present: Miss Williams (in the chair), Misses Knight, Jolliffe, Ferguson, Gibson and Hurst and Mesdames Heath, Dawson and Cleland.

The President presented the annual report of the activities of the Association for the year, and stated that we had had a very successful year, with meetings well attended.

The financial statement was presented by Mrs. Cleland.

**Election of Office-Bearers** resulted as follows:—

**President:** Mrs. Heath.

**Secretary:** Miss Williams.

**Treasurer:** Mrs. Dawson.

Suggestions were then given for future meetings and several speakers named.

Coloured slides were then shown, and supper was served by Miss Williams.

A very enjoyable meeting closed at about 10.30 p.m.

#### **THE WOMEN PHARMACEUTICAL CHEMISTS' ASSOCIATION OF SOUTH AUSTRALIA**

On September 6, at 7.45 p.m., a meeting was held in the Lady Symon Lounge, University of Adelaide.

The President (Mrs. K. V. Read) reported that Mrs. Southcott had been chosen to represent this Association on the N.C.W. Standing Committee on Health. We were all very pleased with this appointment, as Mrs. Southcott has been one of our most loyal and enthusiastic members. Miss Nancy Gerard has been elected a proxy to the N.C.W., and we hope that she will get an opportunity to attend some of their most interesting meetings.

Our Christmas celebrations this year will take the form of a buffet dinner party at Tower House, Beaumont, on Wednesday, December 14, at 7 p.m. We hope that there will be a record attendance of members.

We are able to report that our badges are now finished and are ready for distribution. They can be

obtained from the President (Mrs. K. V. Read), F 3518, or from the Secretary (Miss Kaye Lynas), F 4158. The charge for the hire of badge is 15/-.

Routine matters were dealt with during the short business meeting, after which Mrs. Read welcomed Mrs. J. Albyn Rankine, our guest speaker.

Mrs. Rankine gave us a most delightful talk about flower arrangement, and she illustrated her remarks by arranging two bowls of flowers. She stressed the wonderful help and tuition given her by Constance Spry, whose school she attended in England. She showed us photographs of the school, and outlined the many activities of that most versatile authority on flowers. The time went all too quickly, and the meeting closed at 9.45 p.m., after which supper was served.

#### **THE ASSOCIATION OF WOMEN PHARMACEUTICAL CHEMISTS OF NEW SOUTH WALES**

The Twenty-second Annual Meeting of the Association, held at "Science House" on September 14, was very well attended.

The President, Miss Sweeney, welcomed back to our meetings Mrs. Fairfax and Mrs. Voss, who were both past presidents of the Association, and who both have baby sons three months old.

Apologies were received from Mrs. D. Campbell, our Social Secretary, who is the proud mother of a wee mite just over 2 lb., Jennifer Ann; also Mrs. C. Curry, who had a daughter on September 12. Congratulations to you both.

Our Journal Correspondent, Miss E. Tasker, unfortunately was ill, and unable to attend. We wish her a speedy recovery.

Miss Sweeney gave a short address, referring to the progress of the Association since 1932, when a group of Women Pharmacists contacted their pharmacist friends, and so an Association was formed. This Association flourished during its infancy, then almost went out of existence as a result of the war, but now is flourishing again, due to the working together of its members, as well as the committee.

**Election of office-bearers for 1955-56** resulted in:—

**President:** Miss M. G. Sweeney.

**Secretary:** Miss J. Latham.

**Social Secretary:** Miss E. Palmi.

**Treasurer:** Miss G. Linney.

**Employment Officer:** Mrs. K. Perriam.

**Committee:** Miss Z. Carnel, Miss P. Janes, Mrs. J. Fairfax, Miss E. Tasker, Miss D. Marsden.

We are very pleased to welcome to our committee Miss G. Linney, Miss D. Marsden and Miss Z. Carnel, who are very keen to take an active part in the Association.

Miss Sweeney and Miss Cotham will be delegates to the National Council of Women for the coming year.

Our annual Christmas party will be held on Friday, December 16, at the Hotel Australia. Members are asked to keep this date in mind.

This coming year will be full of interest for us all. We look forward to meeting our fellow-women pharmacists from other States, in Melbourne in May, 1956, during the P.A.A. Conference.

Miss D. K. Large, from the Pharmacy Department, Sydney University, will be our speaker for the October meeting. Miss Large will talk to us about some of the papers delivered at the A.N.Z.A.A.S. Conference in Melbourne in August of this year.

When this goes to print, Miss Sweeney and Miss Chilton will be holidaying somewhere in Australia, wherever the good roads take them. We hope they both have a happy motoring holiday.

## New Books

**THE ANALYSIS OF DRUGS AND CHEMICALS**, by Norman Evers and Wilfred Smith. Pp. xii + 546 (including Index and Plates). Charles Griffin & Company Limited, London, 1955. English price 60s.

The Analysis of Drugs and Chemicals was first published in 1929, the joint authors then being Dr. Evers and Mr. Elsdon. Since the death of the latter, Dr. Evers has had the assistance of Mr. Smith, who now holds the post of Chief Analyst with one of the major British manufacturers of pharmaceutical products—a post formerly held by Dr. Evers. Both authors are very well known in British pharmaceutical circles, and will need no introduction to the many Australian readers of the British pharmaceutical journals.

The book is an attempt to provide a convenient and concise reference to analytical methods for the vast number of substances used in medicine, as well as for related materials used in agriculture and food manufacture. It thus performs a very useful service for the analyst engaged in these fields who would otherwise have to seek for information scattered through many different publications.

The authors claim that the book is to be regarded as a supplement to the B.P. and the B.P.C., and has not been designed to supplant these volumes. While much of the information supplied must necessarily run parallel to that of the official monographs, there is a wealth of material not included in the B.P. or B.P.C.

The authors' long practical association with analytical methods places them in a particularly favourable position to make many relevant comments on analytical procedures. These comments should prove very helpful to the student for gaining an understanding of the reasons for certain procedures which are not immediately apparent from the entirely practical directions of the official monographs.

The first section of the book provides a description of the general physical and chemical methods of analysis employed, and provides very much more information for the student or analyst than a reading of the appendixes of the Pharmacopoeia would supply.

The body of the book has been divided into chapters dealing with groups of subjects such as inorganic compounds, organic compounds, natural products, fixed oils, fats, waxes and soaps, volatile oils, crude drugs, galenicals, and miscellaneous pharmaceutical compounds. A chapter on statistical analysis provides an introduction to this important aspect of the analyst's work.

Many tables of useful analytical data have been included as appendixes.

In each section of the book the substances have been arranged in alphabetical sequence to facilitate reference, and a very adequate general index has been provided.

It is perhaps to be regretted that all of the information has not been brought into line with the analytical data of the B.P. 1953, and that no reference is made to the B.P.C. 1954. A few of the methods described still make use of the directions given in the B.P. 1948, but, when consideration is given to the monumental task performed by the authors, this can only be regarded as a very minor defect, since the analyst could be expected to accept the responsibility of checking details of procedure in the B.P. 1953, if circumstances demanded it.

The authors possibly could have provided a slightly more comprehensive cross-reference to the B.P., B.P.C., and U.S.P., when substances described in these volumes

are included. This has been done very thoroughly in some chapters, but not at all in others.

These minor defects do not seriously detract from the overall value of the work. The book is a well-bound volume, printed clearly on good paper, and nicely set out with bold-face side headings that make the location of information particularly easy. Proof-reading has been done exceedingly well, resulting in the pleasing absence of typographical errors.

The reviewer can recommend this book as one full of useful information for both student and analytical chemist. The authors are to be commended for their labours which have resulted in providing such a comprehensive survey of the extremely diversified field of pharmaceutical chemistry.—A.J.C.

## PUBLICATIONS RECEIVED

**Discovery**, No. 1, 1955, pp. 70, with 31 b. and w. illustrations. (Melbourne University Press.) 5/-.

Discovery is the first of a series of booklets, dealing with research at Melbourne University, designed for general reading, and is an attempt to indicate how and where University research makes practical contributions to society.

In such a booklet it is, of course, possible only to touch briefly on some of the research activities of the 50-odd departments of the University, but the subject matter is so well integrated that the four main sections of the book cover a remarkably wide field. Thus, the opening section, entitled "Man and Industry," by Professor A. J. Francis, deals with Civil Engineering, Research Chemistry, Geology, Applied Mathematics and Mathematical Statistics, Electrical Engineering, Soil Mechanics and Soil Chemistry, Botany, Physics and Zoology.

This might appear, and indeed is, a formidable list, but the non-technical style of writing and the way in which each department is linked up with industry and the community generally becomes, instead of research statistics, absorbing reading.

The second section, "Man and Medicine," by Professor S. D. Rubbo, is of direct interest to pharmacists. Professor Rubbo deals in turn with the activities of the departments of Anatomy, Physiology and Biochemistry, Obstetrics and Gynaecology, Bacteriology, Pathology, Pharmacology and Dentistry. Eighteen pages are devoted to this section, which touches on such a wide variety of topics that it is possible only to comment briefly on them.

Some features are:—

Salt balance and salt depletion.

The measurement of minute amounts of insulin in the blood stream.

A new drug, "196," which shows promise as possessing anti-TB properties.

The development in the Pharmacology Department of the new morphine and barbiturate antagonists.

The continuity of such research is well expressed in the phrase: "The findings have contributed much new knowledge, and like all good research it has raised as many questions as it has answered."

"Man and Society" is the title of the third chapter, compiled by Professor R. M. Crawford. This important and complex subject is admirably handled and presents such a multitude of ideas that precise comment would be superfluous. Research in this field calls upon widely differing departments: the History Department, whose archaeological work will utilise the facilities of the Botany, Zoology and Chemistry Departments; the Department of Economic History, Department of Political Science, the Faculty of Economics and Commerce, the Department of Social Studies, De-

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partment of Criminology, the Faculty of Law, the Department of Education, of Psychology.

The controversial nature of the subject is best expressed in this extract from the book:—

"There are some special difficulties in the way of research into the nature and functioning of society. One of these is the fact that both the researcher and those who read his works are members of society and do not stand outside it. In many of the fields discussed in this chapter, the researcher has to learn, by careful and rigorous training, and by the constant subjection of his work to the criticism of other scholars of all views, to sift established results from prejudice, whether that prejudice is his own or others'. Even complete success in this task of self-criticism would not command general agreement with his conclusions, for politics and economics are everyone's business. We all feel that we know something about them, and it is human to suppose one's own opinions more valid than those one dislikes, even if the latter are supported by better evidence. The more lucid the exposition and the more the conclusions are expressed in normal English, the more exposed is such research to the difficulty of finding common acceptance; those 'social sciences' which grow increasingly technical thereby remove themselves to some degree from the arena of public controversy."

Professor A. R. Chisholm contributes the final section, "Man and the Arts." It is hardly necessary to emphasise the importance of the Arts. A highly developed sense of the best in literature, music and all the Arts is the surest measure of a civilised community.

As Professor Chisholm remarks . . . "The research of university schools of literature and the Arts has often an unexpected utility, but essentially its value is its contribution to the mental climate in which original work of greater value may be expected."

The chapter introduces the Departments of Literature, Classical Studies, School of French and Germanic Languages, Semitic Studies, English Department, School of Architecture and the School of Philosophy.

A notable exclusion from this section is music—surely a medium of intercourse almost as important as language. Can we perhaps look forward to such a contribution in *Discovery* No. 2?—F.H.B.

## PROPRIETARY MEDICINES—A SURVEY

(Continued from page 1030.)

The Association of British Pharmaceutical Industry's published estimate of the industry's present annual output of proprietary medicines advertised to the public is £34 million. In this matter of sales estimates I have had helpful co-operation from Mr. I. Macdonald, M.P.S., general field manager, Nielsen Marketing Research Organisation. After a careful investigation, Mr. Macdonald and the Organisation's chief statistician suggest that the sale in 1954 of advertised proprietary medicines through chemist outlets was somewhere in the region of £20,000,000—that figure being an under-estimate rather than an over-estimate. The estimate of "over-the-counter" sales by chemists of non-advertised ethical proprietaries is £5,000,000. It is considered by this authority and by others that chemists still distribute 80 per cent. of the total turnover in proprietary medicines. If this figure is accepted, then total sales through all points of distribution would amount to £30,000,000 annually.

It is thought that the total number of retail distributors of some or other of the advertised proprietary medicines sold in accordance with the provisions of the Pharmacy and Medicines Act 1941, may be in the neighbourhood of 200,000.

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# Overseas News

## GREAT BRITAIN

London, September 9, 1955.

### Conference At Aberdeen

The outstanding pharmaceutical event of the past month has been the British Pharmaceutical Conference at Aberdeen. This is the most northern city which is ever reached in the Conference's orbit, and is between 500 and 600 miles from London. Aberdeen is situated on the north-east coast of Scotland and is well known not only for its university and fishing industry, but also as the home of the traditional "mean Scot." Nothing could be further from the truth, as Conference visitors quickly discovered. Hospitality was lavish and the people friendly. Smiling faces were seen everywhere in the streets and the only difficulty which Southerners experienced was with the dialect peculiarities encountered when the way was asked from a stranger. Perhaps it was symptomatic of the Conference that the banquet menu extended to twelve courses. A most favourable impression was created also by the many fine buildings. Grey granite is the local freestone, and the builders during the last century made full use of the local quarries. Slightly further north red granite is common and this has been used to embellish some of the buildings.

### Visitors From Abroad

There were many visitors from abroad, but only two Australian names appeared on the lists, Mr. and Mrs. Guenther and Mr. and Mrs. Stones, both of Adelaide. It was rumoured that they met each other for the first time at Aberdeen, but your correspondent could not have this confirmed. In all there were over 700 visitors.

### Conference Chairman

The Chairman of the Conference was Professor J. P. Todd, Ph.D., F.P.S., F.R.I.C., who is Professor of Pharmacy at the Royal Technical College, Glasgow. Some years ago he contributed an original article to the "Australasian Journal of Pharmacy" on "Pharmaceutical Education." He chose as his Conference address "Bacterial Pyrogens," on which he has been working with his research team for over twenty years.

At the Science session no less than 31 papers were submitted, and on account of this large number, for the first time in history, two Science sessions were held simultaneously. As is customary, many of the papers dealt with methods of analysis and bacteriology and pharmacology, each produced three papers. Of the remainder, seven were concerned with general pharmacy, four with pharmacognosy and three with pharmaceutical chemistry.

This year, the Symposium session was given over to a consideration of plastics in pharmacy. Three papers were read on (a) "The Nature and Properties of Plastics;" (b) "Plastics in Containers and Equipment;" (c) "Products Containing Plastics."

### The Social Side

The social side followed the usual Conference pattern, a civic reception, a University reception, a banquet, mentioned below, and a ball. There was a full day excursion to the Grampian country around Braemar and the countryside, where the Royal residence at Balmoral is an attraction for many visitors. Shorter excursions were held for the ladies, and they also were at a garden party at Garthdee House. Sports events occupied part of the last day.

### The Conference Banquet

At the banquet, the toast of the British Pharmaceutical Conference was proposed by Sir David Campbell,

President of the General Medical Council and Dean of the Faculty of Medicine at Aberdeen University. In the course of his speech he said it was a striking fact that the advances made in the treatment of disease during the present century were greater than those made in the whole previous history of medicine. At the beginning of the century there might have been some justification for the development among the leaders of the medical profession of that attitude of mind known as "therapeutic nihilism." There was none now. "Indeed," he said, "there never was a time when drugs, properly used, were more important to humanity both for the preservation of health and in the treatment of disease, and that fact throws an ever-increasing responsibility on the pharmaceutical profession."

These facts should be weighed against the criticism made on the cost of the "cascade of drugs which is said to be pouring down the throat of the great British public." He readily agreed that the number of prescriptions had increased in recent years, more perhaps than was necessary and reasonable, but the plain fact was that the increased cost was in the main due to the greater use of the more costly drugs, such as antibiotics and anticoagulants.

To illustrate this, he mentioned that an investigation a year or two ago of the cost of drugs at Aberdeen Royal Infirmary showed that 10/- in every £1 was spent on five drugs alone. "And we must in fairness set against the cost not only the number of lives saved by these drugs, but the economies in the length of time a patient may be off work and in hospital bed occupancy," said Sir David. He also said that the pharmaceutical profession had constantly sought to improve educational standards. They had raised the standard of entrance to their profession to that of the universities. They had determined that the student of pharmacy should be instructed in biology, in physiology and in bacteriology. Some might be tempted to say, "Is all this necessary?" His answer would be undoubtedly, "Yes." The orientation of modern therapeutics had been in the direction of biological and chemico-therapeutic products, and pharmacy must, as it had done in the past, concern itself with what was living and fruitful in medicine. If the student was to keep pace with modern knowledge, he must learn something of the main principles of biological methods, and must be given the means of understanding the important lines of development in the production of new remedies, and the methods by which their activity and therapeutic value were detected and investigated before they were ready for selling over the counter. Sir David said in conclusion: "I am certain that the goal of the British Pharmaceutical Society is to make the profession more and more worthy of all the privileges and the position of a learned profession."

### Proprietary Medicines in 1955

The Branch Representatives' Meeting, which was attended by about 200 members from all parts of Great Britain, discussed the present position of proprietary medicines. The representatives had previously received papers by Mr. H. E. Chapman on the history of the subject, by Mr. Treves Brown on the manufacturers' point of view and from Mr. J. C. Bloomfield on the retail aspects. The summaries in the three papers were read and a lively discussion followed. The two outstanding facets were the multiplicity of types of the same preparation, leading to wasteful stock-keeping, and the question of substitution, particularly in hospitals. It was clear that retailers were greatly concerned with the ever-increasing number of ethical preparations which doctors prescribed for short periods and then discontinued doing so when some new preparation appeared, so that stocks were left on chemists' shelves. Mr. Bloomfield outlined a scheme by which information on surplus stock was circulated amongst a number of chemists. This method, however, entailed considerable clerical work. Numerous proprietary brands of the same medicament were also trying for

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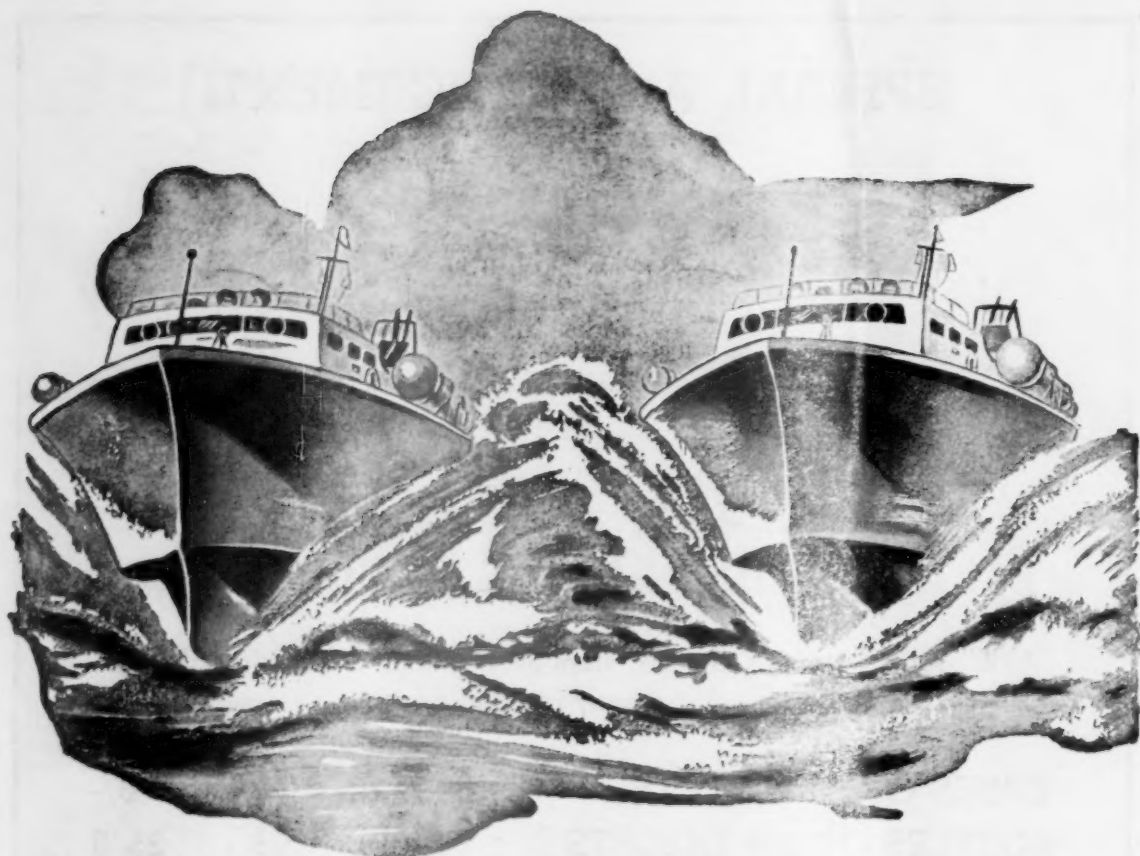
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the retailer, and some members were in favour of control system over the marketing of new medicaments being set up. Mr. Treves Brown defended the trade name practice and said it was essential in export markets. Retailers should note that they had to carry many brands of cosmetics and photographic materials, so that they should not grumble about brands of medicines. On substitution, it seemed that the practice was carried out widely in hospitals, where the pharmacist had the prior authority of the prescriber to substitute a non-proprietary article when the medicine was ordered by its trade name. This was done in the interest of economy and, of course, does not occur in retail pharmacy.

The labelling of proprietaries has also been receiving attention from the Executive Councils' Association. The Management Committee has decided to recommend to the Minister of Health and to the British Medical Association that steps be taken to end the practice of certain manufacturers of proprietary preparations in labelling their goods in such a way that although the preparations are not advertised direct to the general public, details of the composition and uses are made known to the patients for whom they are prescribed. The matter was brought to the Committee's notice by an Executive Council which forwarded a letter they had received from the Local Medical Committee who drew attention to the fact that the labelling is often of such a nature that it is not possible for chemist-contractors to eradicate what must be termed advertising details before handing over the medicaments to National Health Service patients. The local Medical Committee felt that in this way general medical practitioners were being unwittingly concerned in assisting the wholesale publicising of certain pharmaceutical products. Further, as lists of complaints for the treatment of which manufacturers claimed their products were suitable, were often printed on the packaging, patients were sometimes tempted to do their own prescribing for various forms of ailment from which they themselves considered they were suffering.

The matter had received the consideration of the Local Medical and Pharmaceutical Liaison Committee and that body, said the Executive Council, was unanimous in its decision that steps should be taken to prevent the continuation of this practice. Instances were given of special types of packaging used by certain manufacturers, so that when their products were prescribed for National Health Service patients, the elimination of the name and the various details of the products by the chemist-contractor who made the supply was a very simple matter.

#### Future Conferences

Next year's Conference will be held at Dublin, the capital of Eire, and it has already been agreed that in 1957 the Conference will visit Bristol, and in 1958, Sheffield. Next year's President is Professor Kenneth Bullock, who has just succeeded Professor Brindle in the Chair of Pharmacy at Manchester University. Professor Bullock has been an enthusiastic supporter of the Conference for almost thirty years, and has given a large number of research papers as well as taking an active part in the discussions. On many occasions he has been a member of the Board of Examiners for England and Wales.

#### Death of Past President

At the end of August, Mr. Walter Deacon, C.B.E., M.Sc., one of the best known past Presidents of the Society, died. Mr. Deacon was a member of the Council from 1930 to 1954 and held the office of President from 1938 to 1942. This period included the centenary year of the Society, when Mr. Deacon broadcast on the history of the Society, and the earlier years of the war. As President, Mr. Deacon became the first Chairman of the Central Pharmaceutical War Committee, which was responsible for the recruitment of pharmacists to the services and the maintenance of adequate manpower for

civilian needs. He had also been Chairman of the Publications Committee and served on the Committee of Enquiry set up in 1937 to consider conditions under which pharmacy was practised in Great Britain. In addition he was a member of the Statutory Committee and of the Poisons Board. He had also an active role in local politics being Mayor of Bridgwater on three occasions, and was a Justice of the Peace for the County of Somerset. He found time to be a member of the local Executive Council, chairman of a hospital management group and a member of the Management Committee of the Executive Councils' Association. In earlier years he acted as a radiographer and was a founder member of the Society of Radiographers. He owned a number of retail businesses and was created C.B.E. in the Society's centenary year, 1941, and was given the honorary degree of Master of Science by Bristol University. He was granted the Freedom of Bridgwater and was a senior alderman of the Borough.

#### Salaries in Scotland

Generally salaries in pharmacies in Scotland are below those in England and Wales. Now the minimum salary for managers in Scotland has been fixed at £11/12/6 per week, based on sales up to £100 per week, with an additional 2/- for each £10 increase in weekly turnover up to a maximum turnover of £600. The basic salary for manageresses is 12/- a week less. For male qualified assistants the salary scales range from £9/2/- to £10/2/-, with female rates 7/- under these figures. The normal working week is 46 hours, with overtime paid at time and a half for week-days and double time for Sundays and holidays. Rota duties are paid for at 6/- an hour on week-days and 10/- an hour on Sundays. Two weeks full holiday with pay is a standard condition of employment, provided twelve months' service has been completed.

#### London Degrees

The senate of the University of London has resolved that from July next examinations will be held for the degree of Master of Pharmacy (M. Pharm.) for internal students. One College, Chelsea Polytechnic, is now offering a course for a M.Sc. degree in pharmacology, by examination.

#### Chloramphenicol Eye-Drops

A recent amendment to the Drug Tariff gives the following formula for eye-drops:—

Chloramphenicol . . . . .	0.5 grain
Borax . . . . .	0.3 grain
Boric Acid . . . . .	1.5 grains

Solution for Eye-drops to . . . . . 110 minims  
This formula is to be used for prescriptions where no formula has been given by the prescriber. Where the prescription requires a lower percentage of chloramphenicol the amount may be varied accordingly.

#### Edinburgh Health Centre Expands

In earlier News Letters the pioneer Health Centre in Scotland, at Sighthill, Edinburgh, was described, and a report given of the first year's work. Now the Management Committee has issued a report on the second year's activity. The number of patients has increased to about 17,100 on the doctors' lists who use the Centre. The pharmacy department has begun to dispense for local health authority clinics and there is a sterile syringe service providing up to 1000 syringes per month. Prescriptions have reached over 20,000 per year against just over 8000 in the first year, and biological tests are also undertaken. The dispensing service is provided from 9 a.m. to 12.15 p.m., from 2 to 4 p.m. and in the evenings, except Wednesday, from 5.30 to 8 p.m., and on Sunday from 9 to 11.45 a.m. only.

At the annual meeting of the Scottish Department, there was discussion on the "challenge of Health Centres to retail pharmacy." It was pointed out that the above Centre dispensed nearly 40 per cent. of all pre-

scriptions in the area, and this was on a 39½ hour week only. The principal speaker, Mr. J. B. Grosset, said that retail pharmacy must fight for survival against the new monster of State pharmacy. It was also suggested that some doctors now wished to have a pharmacist on their premises to dispense their prescriptions.

In Middlesex, one of the densely populated Metropolitan Counties, The Executive Council decided that group practices provided a more generally acceptable and economic form of Health Centre than that originally envisaged under the Act, and that there was no professional demand for the establishment of Health Centres in the County. This view was passed to the County Council, which is responsible for setting up such centres, and was based on the views of the local professional committees. The local Pharmaceutical Committee had been of the opinion that there was little justification for the erection of health centres in the County at the present time, but would wish to reconsider the matter should there be any additional buildings schemes within the County.

## SOUTH AFRICA

### Polio Vaccine

Perhaps the question most in the minds of the public and directed every day to chemists is "Is the South African Polio Vaccine safe?"

It is perhaps unfortunate that the S.A. Polio Research Foundation should begin to issue its Salk-type vaccine almost simultaneously with the mishap in America. Several groups of doctors have already indicated that they will not use it, and official circles have done little to dispel doubts.

The special committee decided that the vaccine produced in South Africa is safe and probably efficacious, but to date there has been no issue of statistics in support of its use. The net result is that there is a distinct lack of enthusiasm amongst the public and no rush to be immunised.

### Distribution of Pharmacies

The South African Pharmacy Board met in June, and the Registrar presented his half-yearly report.

There are now 2554 chemists on the Register, and some 1609 pharmacies in the Union. This figure, which includes manufacturing chemists, agents and ethical houses, as well as retail pharmacies, is broken up:—

Cape Province . . . . .	481
Natal . . . . .	199
Orange Free State . . . . .	92
Transvaal . . . . .	820
South-West Africa . . . . .	17

Considering the population figures of 2½ million whites and 10½ million non-whites, everything in the pharmaceutical garden seems lovely.

However, the majority of these pharmacies are in the cities and urban areas, many of the country areas being without a pharmacy. The population is, however, in many areas so scattered that it would be impossible for a chemist to live, even in the smaller towns, unless he is protected from undue competition.

This competition, about which I have written before, takes the form of the dispensing doctor, the general store which sells everything, and last but not least the people who buy wholesale.

This last group includes not only the numberless people who have a friend who has a general dealer's licence and can buy wholesale, but an increasingly large body of people who acquire a general dealer's licence for just that purpose. They have no shop and no customers, except perhaps their native employees,

but buy everything on the best terms, including their pharmaceutical wants.

Another large leak is indicated by the Registrar's statement that during the first six months of this year he inspected some 4600 poisons licences—more than the total issued last year!

The President of the S.A. Pharmacy Board in a speech at a cocktail party, asserted that there were some 3300 dispensing doctors in the Union, as well as 14,000 general dealers with patent medicine licences. These dispensing doctors have practically no training in dispensing, and pay no licence fee, stated the President in an interview, adding that it was vital that newly qualified chemists should throw their weight into the struggle to secure full rights for the profession.

Chemists in South Africa are, however, no different from those in other parts of the world. They will join the Pharmaceutical Society, although some of them have to be talked into it, and will resign just as soon as they are required to make some small sacrifice. Having joined, they can with difficulty be got to attend meetings, and even if they do air their views are then quite content to throw the whole burden on to the shoulders of their voluntary officers. Sometimes I think that if the millennium were suddenly arrived at chemists would complain because they had nothing to grumble about.

### Examinations

The Board considered many matters of which the June examinations was one. One hundred and fifty candidates entered for the Intermediate Examination, 53 passing and 25 being referred in one subject. Of the 160 who entered for the Final Diploma in Pharmacy Examination, 62 passed and 18 were referred in two subjects, 38 in one subject.

### Compulsory Membership

The matter of compulsory membership of the Pharmaceutical Society was debated, the Board having previously indicated that it could not support the idea. Now, on being asked what the objections were, the Board advanced the view that since the Society included amongst its objects the fixing of minimum prices, they, the Board, could not make membership compulsory, since the Board was forbidden by the Act to do just that thing.

Whether, if the Society alters its Constitution, the Board will then see eye to eye with it on the subject of compulsory membership is a matter for conjecture.

However, for the time being the dream of creating a situation similar to that obtaining in Great Britain seems to have faded.

### Reciprocity

The question of reciprocity with Great Britain also came under review, and it was agreed to preserve the status quo for six months, when the problem is to be again examined.

Why there should not be reciprocity throughout the Commonwealth is a little obscure. It is not possible to have a uniform examination nor a uniform standard, and it is equally obvious that one cannot cancel reciprocity if one country raises its standard. If this state of affairs is carried on, it will eventually develop into a position where one cannot even cross a State line without undergoing examination.

### Ethical Rules

The Pharmaceutical Society through its Annual General Meeting have asked for several new ethical rules to be made. One was to prohibit even the indirect advertising of dispensing, on which the Board have postponed making a decision. Some chemists have incorporated the word "Dispensary" in their trading title, others phrases like "Day and Night Chemists," which some pharmacists regard as unethical.

Of course  
he's happy . . .

He's a  
Steadiflow  
baby..



and you'll be happy too  
with the volume of  
Steadiflow Sales . . .



You can't afford to be without Steadiflow in stock—it's Australia's most popular nurser. You can recommend Steadiflow with confidence—it's the nearest to natural feeding that modern science can devise.

More hygienic, easy to fill and clean, anti-colic, Steadiflow is the bottle your customers will ask for.

*Steadiflow*

## BABY'S FEEDING BOTTLE

*In Standard Glass, Pyrex Glass, Unbreakable Plastic.*

### HERE'S YOUR PRICE LIST — ORDER NOW !

	Wholesale doz.	Retail each		Wholesale doz.	Retail each
Steadiflow Pyrex Feeder (complete)	52/-	6/6	Steadiflow Standard Replacement Bottles	16/-	2/-
Steadiflow Pyrex Replacement Bottles	26/8	3/4	Replacement Teats, 1 hole and 3 hole	13/4	1/8
Steadiflow Plastic Feeder (complete)	62/-	7/11	Replacement Caps	8/-	1/-
Steadiflow Plastic Replacement Bottles	36/8	4/9	Replacement Discs	4/-	6d.
Steadiflow Standard Feeder (complete)	40/-	5/-			

Distributed by James Hare & Co. Pty. Ltd., 409 Collins Street, Melbourne.



**CALMING** the troubled mind . . .

**Quiescin**

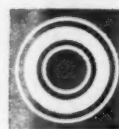
RESERPINE-ORGANON

*for the anxious patient who is not really ill*

QUIESCIN, an alkaloid of *Rauwolfia serpentina*, is of great value in promoting freedom from anxiety and tension. It gives a feeling of relaxation and comfort, banishes depression, and lowers raised blood pressure.

**INDICATIONS**

Anxiety states  
Mental illness  
Hypertension



**Quiescin**

- ★ unlike the barbiturates, does not cause mental dullness or addiction
- ★ wide margin between therapeutic and toxic dosage.
- ★ no lowering of blood pressure in normotensives.
- ★ only mild, infrequent side-effects encountered.

**DOSAGE**

For mental illness and/or hypertension  $\frac{1}{4}$ -3 mg. per day in divided doses as required. In anxiety states up to 1 mg. per day as necessary.

**AVAILABILITY**

Tablets of 0.1, 0.25 and 1 mg. in bottles of 25, 100 and 500.

*Literature and clinical sample on request*

**ORGANON LABORATORIES LTD.**

Sole Australian Agents:

**BRITISH PHARMACEUTICALS PTY. LTD.**

8-12, BATHURST STREET, SYDNEY, N.S.W. (Box 3967 G.P.O.)

Box 232, OV. G.P.O. Melbourne. Box 1162/P. G.P.O. Brisbane. P.O. Box 845, Adelaide, S.A. Box S1549, G.P.O. Perth, W.A.

Be that as it may, it is a little difficult to see how far the Board can go in disregarding the expressed wishes of the majority of retail pharmacists.

However, a new ethical rule was made, and has been promulgated, which forbids any chemist from dispensing prescriptions or compounding any drug, not being in the completely packaged form, intended for sale as a proprietary medicine, on behalf of an unregistered person. This will, it is hoped, prevent the manufacture of bulk medicines or concentrates for breaking down by unqualified practitioners. There is apparently nothing which prevents these unqualified practitioners, naturopaths, etc., from writing prescriptions, provided they are not for poisons.

#### The Board and the Society

A problem which has been exercising the minds of both the Pharmaceutical Society and the Board is the question of people sitting on both bodies. The Executive of the Society some time ago saw no objection to its members sitting on the Pharmacy Board, and the Board has now taken a similar stand. There are many matters, however, in which the Society and the Board apparently do not see eye to eye, and it is then that conflict arises.

This is made apparent when one considers the constitutions of both bodies, and when one recalls the fact often expressed that the Board should be a body subservient to the Society and performing the same functions as the Disciplinary Committee of the British Society.

The Board is, however, a part elected, part nominated body, charged with administering the provisions of the M.D. and P. Act; since it is a quasi-Government body, the underlying theme of its activities is *pro bono publico*. The Society has the idea that the aims and objects which it has are not always compatible with the *pro bono publico* spirit of the Board.

At the last A.G.M. the Society was charged with the task of creating a new Pharmacy Act, entirely apart from the M.D. and P. Act, and presumably reducing the importance of the Board.

#### New Drug Schedule

The new Schedule of Potentially Harmful Drugs with its train of attendant difficulties has not been exactly pleasing to pharmacists in general. It was accepted, however, because they hoped—no, rather confidently expected—that the recommendations of the Bremer Committee would be implemented.

Officialdom has, however, shown no signs of even being remotely interested in the pharmaceutical utopia which the report envisaged, and the general body of the profession is more than a little resentful. The Actions Committee, appointed at the A.G.M., has been seeking to bring about this desirable state of affairs, but so far—nothing doing.

#### Proposed Degree Course

The same report, which promised Utopia, brought about the educational changes, which were accepted as part and parcel of the bargain. Now pharmacy is beginning to ask what has happened to the proposed degree in pharmacy. One University, which accepted some students for a B.Pharm., has now apparently withdrawn, and a second university has indicated that it requires considerable financial support before even contemplating.

The editorial in the current issue of the "Pharmaceutical Journal" suggests that there is no reason why the technical colleges should not train for a degree in Pharmacy. To date, however, it has been the policy of the powers that be that there should be no competition between technical colleges and universities. Since the Government is now proposing to take over technical colleges, there seems little likelihood of the degree in pharmacy ever maturing.

#### Licences for Glucose?

To add to the many problems which beset the chemist, municipal inspectors in Johannesburg have recently been telling them that in order to sell glucose confectionery they must hold a confectioner's licence.

For once the Society has been able to achieve something, and the chief licensing officer to the City of Gold has backed down and indicated that such licences are not necessary.

#### Television

TV is much in the air at the moment, and most people are thinking in terms of commercial television. It comes as a surprise to me to learn that one S.A. pharmaceutical manufacturer spends £65,000 a year in advertising. There is no doubt that commercial radio is a potent factor in marketing, but I sometimes wonder what the man in the street thinks of the pharmacist who is willy-nilly linked with much advertising of a low intellectual standard.

Personally I am led to wonder by what machinations the commercial radio manages to put out a noisy serial to coincide with my arrival home dead beat, or to synchronise a detective story, to which my children must listen, with dinner time. It never seems to occur to these people that they would be doing the world a signal service if they put these programmes on at 6 a.m.; then at least the children would rise with alacrity.

Oh, for the days of yesteryear, before Marconi meddled with the ethereal silence and Bell shattered the privacy of evenings at home with his telephone.

Progress is progress and cannot be halted, but I do recall that in the old days—the good old days—if we ran out of a galenical we made it. Now it is simple to pick up the phone and reduce all our training to nullity.

#### Prescription Only Drugs

The world of pharmacy has been waiting for the Amendment to the Schedule of Potentially Harmful Drugs. Whispers of several drugs which will be removed from this list of prescription-only drugs have reached pharmacists, but so far as is known no official consultation with the Pharmaceutical Society has taken place.

Chemists, of course, have decided ideas as to what drugs are freely saleable, but these do not always coincide with the views held by the Department of Health. There seems to be no reason why some of the anti-histaminics should not be freely saleable, nor does it seem logical that minute traces of a barbiturate should require a prescription.

However, the predominant fear amongst chemists is that officialdom will bow to a large body of opinion and free doctors from the necessity of keeping prescription books and observing the regulations dealing with Schedule VI drugs. It has been made abundantly clear that these regulations are honoured more in the breach than the observance, and that to date it seems to have proved impossible to bring them into line.

So few doctors seem to be able to write a Schedule VI prescription correctly that chemists despair. Ethically, a chemist should refuse to dispense an incorrectly written script, but if this were done some 90% of the customers would be turned away.

Whilst the Act places the onus of writing the script correctly upon the shoulders of the doctors, so far no prosecutions have taken place. For that matter, no chemist has been prosecuted, either, but none the less inspectors have been assiduous in pointing out errors.

#### Frustration

There is no doubt that as time progresses and as more and more experience of the amending Act is gained, chemists are becoming more and more fed up with it.

Looking back over a period of 20 years' activity in pharmaceutical politics, I cannot recall a time when chemists were in so bitter a mood and labouring under so intense a feeling of frustration.

It may even happen that at long last a concerted action will develop which will carry pharmacy on to its desired goal. What, however, is essential is first to decide what that goal is and then to find a way of reaching.

The world in general seems particularly ignorant about the pharmacist, his training, his hopes and ambitions and his legitimate rights. In the U.S.A., where they do these things bigger and better, the public has been made well aware of these facts through the public relations officer. The South African Society is now considering some such appointment, but publicity costs money, real money, and this is the first need. South African chemists may then expect being levied in the near future to finance the trip to their objective.

## Readers' Views

To the Editor.

*These columns are open for the free discussion of any matter of general interest to Pharmacists. Letters under a nom de plume may be published; but each correspondent must furnish his name and address as an evidence of good faith. It must be distinctly understood that the opinions expressed by our correspondents are not necessarily endorsed editorially.*

### UNIFORMITY OF POISONS SCHEDULES

Sir,—In your issue of July 30, 1955, there appears a letter over the signature of R. E. Gostelow, which is misleading in certain important particulars.

First, it is suggested that my Department has prepared and submitted to the States proposals for the adoption of uniform Poisons Schedules throughout the Commonwealth. This statement calls for categorical denial. Whilst it is true that draft model Schedules have been prepared for this purpose, these have been the work of a special sub-committee of the National Health and Medical Research Council, for which the Commonwealth Department of Health has served only as a Secretariat and Office for the exchange of information between States and other interested parties.

Second, it is suggested that the Commonwealth Department of Health is endeavouring or will endeavour to have State legislation amended to provide certain new and contentious restrictions affecting licensing for the sale of poisons. This is definitely not correct. The Commonwealth Department of Health, as such, has no jurisdiction in this field of State administration, and will not intrude into it. Furthermore, the special committee submitting the draft proposals was at pains to make it abundantly clear in its report that it was not concerned with this aspect of poisons administration in the States, and that it limited its recommendations to matters of Interstate concern—labelling and packaging.

No good purpose—quite the contrary—is to be served by the raising of fanciful doubts and ungrounded fears at this juncture concerning proposals which once uniformly adopted, with or without variation to achieve general agreement, will affectually remove much of the embarrassment and inconvenience at present attending the marketing of drugs in Australia. Yours, etc.,

Canberra, 9/8/55.

A. J. METCALFE,  
Director-General of Health.

## Trade Notes

Sigma Co. Ltd. has announced that Mr. C. A. Middleton has been appointed **resident representative in Tasmania**. His duties will include the servicing of all chemists and detailing of all doctors in Tasmania.

**Boots Pure Drug Co. Ltd.**, of Nottingham, England, has been included as a Royal Warrant Holder in the list of Warrant Holders to the Queen, published as a supplement to the London Gazette on July 15, 1955.

**Cambridge Laboratories**, of Footscray West, Victoria, announce in this issue the introduction of a new stomach ulcer remedy, "Pep-ulsade." Tablets cost 16/8 per bottle of 100, to retail at 25/-.

**Rotary Tabletting Corporation Pty. Ltd.** announces that as from October 1 the sales, distribution and stocks of its bulk tablets will be in the hands of Pharmaceuticals Pty. Ltd., 93 York street, Launceston, which will be pleased to service inquiries for all or any of the usual varieties and strengths of medicinal tablets.

**Mr. Harold Taylor**, proprietor of **Amolin Laboratories**, who has just recently introduced a second size of his product to the Australian market, reports that the new size has been very well received in all States. Mr. Taylor's enterprise in sponsoring his product was again evidenced in connection with the "Around Australia Redex Trial." All "Redex" drivers in both this year's and last year's trials were supplied with "Amolin" as a skin protection cream against the rigours of the trip, and Mr. Jack Murray, winner of the 1954 trial, is reported to have spoken in glowing terms of the benefits derived from using the cream. Amolin offers a wide prescribing range for babies, children and adults, and is a P.A.T.A. and "Chemists Only" line.

### TINTED TOILET TISSUES

**Muir & Neil Pty. Ltd.**, of Sydney, advises that, in addition to white, Carnation Double-ply Toilet Tissue is now available in pastel colours, pink, blue, yellow and green, at no extra charge.

### F. & McA. DISTRIBUTION IN TASMANIA

**Fawns & McAllan** announces that as from October 1 the agency-distribution and stocks of its range of ethical products will be in the hands of Pharmaceuticals Pty. Ltd., 93 York street, Launceston, which will service all inquiries from the wholesale and retail trade.

### SYNTHETIC "PIPERIDOLS"

Sigma Co. Ltd. has announced the release of the first of a series of synthetic "piperidols," marketed under the trade name "Dactil with Phenobarbital."

Dactil, and the succeeding developments, will be processed and marketed in Australia solely by Sigma Co. Ltd., under licence from Lakeside International Corporation, Milwaukee, Wisconsin, U.S.A.—the company responsible for its development.

We are informed that Dactil is being accepted by the medical profession as a new visceral eutonic, that is, it restores and maintains normal visceral tonus without interfering with gastric motility or secretion.

Price of 25's wholesale is 20/- each (retail 28/-) and of 100's wholesale 60/- each (retail 80/-).

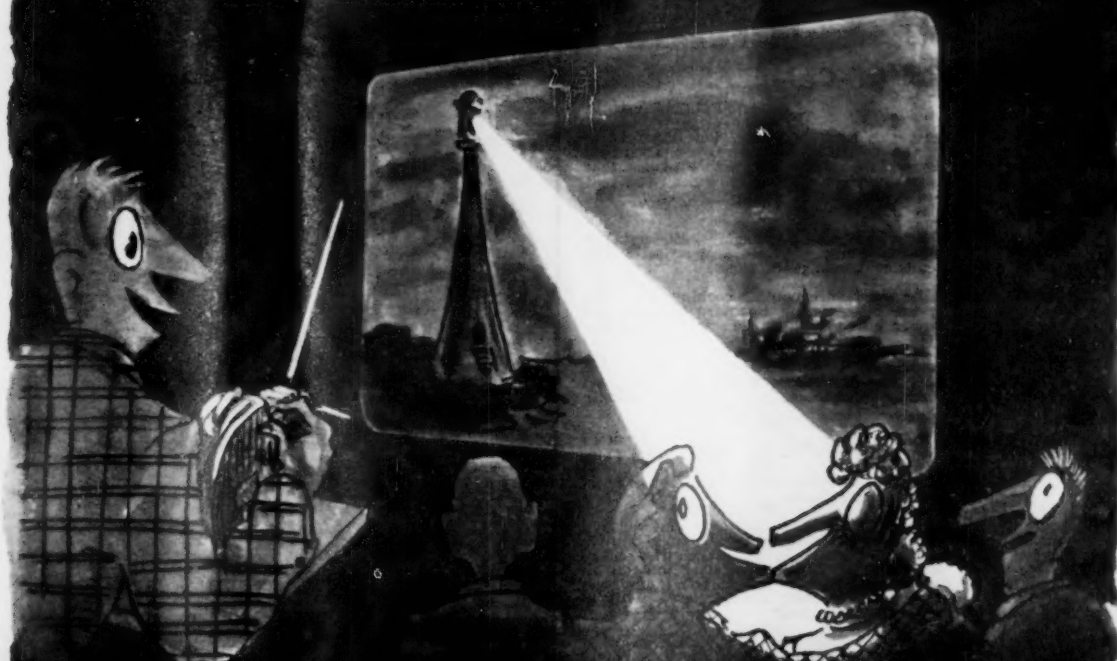
### WRIGLEY'S REDESIGNED BOX TAKES 50 PACKETS

Wrigley's (Aust.) Pty. Ltd. reports it has now changed its box design for P.K., Spearmint and Juicy Fruit to bring it into line with Wrigley's pack throughout the world and to ensure the gum reaching the consumer in the freshest possible condition.

The new pack will be 50 packets to a box instead of 72, and profit margins to the trade have been maintained throughout.

The change-over has been carefully planned, and Wrigley's representatives have been working for some months modifying display units to take the new type boxes. If your Wrigley's display unit has not yet been modified, do not discard it, as a representative will be around within the near future to make the necessary adjustments for you.

NEVER BE EMBARRASSED



BY HAVING TO SAY "NO" TO CLIENTS — ALWAYS STOCK

**WATERWORTH**

FILM STRIP AND SLIDE PROJECTORS



MADE ENTIRELY  
IN AUSTRALIA

## "AUSTRALIA'S OWN PROJECTOR"

IS AVAILABLE IN VARIOUS MODELS

They are very efficient, easy to operate and can be supplied with lenses having from 3-10 in. focal lengths. A Micro-Attachment can also be supplied.

SPARES ALWAYS AVAILABLE

### E. N. WATERWORTH

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Dear Sirs,—Please send me details and price list.

Name

Address



# **PROMOTION OF PHOTOGRAPHY IN PHARMACY MAINTENANCE OF CAMERAS**

Seventh Article

When selling a camera it is most important that the retailer should briefly instruct the customer on the care that should be exercised when using same. Very few people realise that a camera has a fine mechanism similar to a watch, and that they ought to read the instruction book with care. The following points are of importance:—

The camera should be carried in a carrying case and not left exposed, particularly on windy days, as dust or sand may get into the shutter, causing blockage of same.

Shutter speeds must be set before shutter cocking, as, when the shutter is cocked, the main spring is under tension, and changing over the shutter speed will shorten the life of the camera.

On 35 m.m. cameras, where the film transport is coupled with the shutter cocking mechanism, the film transport should be executed before taking the picture and after the shutter has been set.

The delayed action on Pronto shutters or old model Prontors should be set after the shutter has been cocked. On 35 m.m. cameras fitted with rewind, it is important that the clutch device should be set properly during the rewind operation, as otherwise untold damage may occur.

It should also be pointed out to the customer that delayed action must not be used if shutter is set on B, or if shutter is off speed marks, viz., between the longest shutter speed and B. We speak from experience when we state that on all lever wind cameras, if the delayed action is being operated, the lever wind must not be touched or interfered with in any way until all shutter action ceases.

All 35 m.m. cameras are provided with a clutch system for rewinding the film after it has been fully exposed. Where cameras are equipped with press button clutch (such as the Paxette) it is only necessary to make sure that the clutch is depressed during rewind. If the film sticks, lift the finger off the clutch and depress same once more to ensure that proper pressure is exercised.

Some models as, for example, the Gloriette and Retina, are equipped with a button which has to be pushed aside. It is most important that this button be pushed to the extreme corner during rewind or actual taking of photos. If the rewind is not operated according to factory instructions, trouble may be encountered.

If cameras equipped with rangefinders are transported in any motor vehicle, care must be exercised that they are not placed in any position where they could be jarred, as rangefinders are extremely sensitive to shock. For example, the camera should be placed on several folds of cloth which would soften any jarring which might occur.

Readjustment of rangefinders must be carried out by a repairer, except in the case of the Paxette, where the rangefinder setting is controlled by two screws in the back of the camera. Easy readjustment is possible by means of a watchmaker's screwdriver of suitable size. It must be borne in mind, however, that only minute movements of the screws are necessary, and it is advisable to seal with black nitro cellulose lacquer after readjustment has been made.

The customer must also be instructed to read fully the instruction book of the camera before operation, and if any fault occurs in the operation of the camera, force must not be used. In the event of any repair becoming necessary, the camera should be returned to the retailer, who in turn should send it to a repairer.

In the event of any trouble occurring with a Carl Braun camera, we specially request that it be returned to us, even if factory guarantee is not claimed, as we carry a full range of spare parts.

## **IN SUBSEQUENT ISSUES:**

What to stock in Accessories

Principles of Advice to Customer

Inserted in the interests of  
Pharmacists by Photimport  
Pty. Ltd., Melbourne.

## **PHOTIMPORT PTY. LTD.**

MELBOURNE: 68 Smith Street, Collingwood — — — — — JA 3571  
SYDNEY: 59 York Street — — — — — BX 3216  
PERTH: C/o Geoff Martin & Son, 83 Brisbane Street — — — — — BF 1791  
Queensland Distributor: Gradwell Bros., 99 Edward Street, Brisbane B 3695  
S.A. Distributor: Arthur Searcy & Son Ltd., 138 Grote St., Adelaide LA 2891

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# **CATALOGUE**

ALSO

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ON

# **CLOSE-UP PHOTOGRAPHY**

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If you do not receive your free copy  
by the 20th October, kindly contact  
the distributor in your State.

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Spare Copies For Sale

Retailing at 2/-

The Catalogue has 48 pages  
densely printed to keep it  
to pocket size.

### SHAVING BRUSHES

Dormay Co., of 29 Reiby place, Sydney, have been appointed Australian agents (excluding Queensland) for the products of the Progress Shaving Brush Co. Ltd., Stockport, England.

This company is England's largest manufacturer of quality shaving brushes, both bristle and badger, and is renowned for the "Vulfix" brushes throughout the world.

Any inquiries will be welcomed by the agents. Stocks of regular lines are arriving shortly, and all wholesalers will be notified. A further announcement will be appearing in the "A.J.P." soon regarding a special display offer for the Christmas season.

Inquiries for Queensland should be addressed to Australian Agencies, 2nd Floor, Albert House, King George's square, Brisbane.

### BABY FOOD BUSINESS IS BIG BUSINESS NOW

Sales of canned, ready-prepared baby food in Australia during the past few years have increased amazingly. This important and ever-increasing market is causing the development of many "Baby Food Departments" in stores throughout the country.



There are many reasons for the astounding growth of these Baby Food Departments, and the chief reason is an increasing demand for canned baby foods.

In Australia within the next 12 months approximately 200,000 babies, or about one baby every three minutes, will be born. Each of these babies represents a potential customer at that. Once

he begins to use canned baby foods he is a customer to the tune of approximately 680 tins during his first 12 months of feeding.

The more astute manufacturers and retailers have already cashed in on the unlimited possibilities of this only half exploited market. There are still many thousands of customers waiting to be sold in this field.

The sale of baby foods is not altogether restricted to babies. Where it is essential that the food should be easily digested, perhaps during convalescence after an operation, or where mastication or swallowing is difficult due to an operation on the mouth, or infection of the throat, canned baby food is ideal, and more and more doctors and dentists are recommending canned baby food diets for adults under these conditions.

### RUMBLES LTD.

Another attractively designed Annual Report and Balance Sheet of Rumbles Ltd., of Perth, was sent to all shareholders during August. Illustrations contained in the report depict the growth of the business since the last war, and also the comprehensive service Rumbles Ltd. is today providing the retail pharmacists of W.A.

An extract from the Chairman's Report reads: "There is no doubt that today your Company's development is closely allied with the economy of Western Australia, which of course is steadily expanding. Over the past years your Board has adopted a bold policy of expansion, which, implemented by efficient management and shareholder co-operation, has assured the success of Rumbles Ltd. Your Board is most confident of the future years."

The Balance Sheet and Accounts show that an interim dividend of 5 per cent. was declared in February, 1955, and a final dividend of 5 per cent. (making 10 per cent. for the year) was recommended by the Directors.

The Annual General Meeting of Shareholders was held in the Company's meeting room in the warehouse at 12 Aberdeen street, Perth, on August 23, with a good attendance of chemist shareholders. The retiring Director, Mr. G. H. Dallimore, was re-elected to the Board unopposed.

### BOOTS' PREMISES GAIN SULMAN AWARD FOR ARCHITECTURE

The annual Sir John Sulman medal and diploma for architecture has been awarded for the design of the commercial offices and warehouse of Boots Pure Drug Co. (Aust.) Pty. Ltd., at Roseville (pictured).

The Sydney architectural partnership of Stafford Moor and Farrington, with the assistance of J. Forzillo, designed the winning entry—the best of 16.



A Sydney architect, Mr. Morton Herman, according to a press report, said the winning design, an impression of which is given in the accompanying illustration, had "interpreted the needs, constructional methods and aesthetics of the world today. It provided beauty of form in appropriate materials and a structure which was so integrated to its site that it had the quality of inevitability."

The Sir John Sulman prize is awarded annually for buildings of outstanding merit erected within N.S.W.

### MAURI BROTHERS & THOMSON RESEARCH LABORATORY

We are advised by Dr. R. A. Bottomley, Superintendent of Research, Mauri Brothers & Thomson Limited, of the appointment of the following to his staff:—

Senior Research Chemists: Dr. A. D. G. Powell and Mr. G. J. Lincoln, B.Sc. (Hons.), A.R.A.C.I.

Biochemist: Mr. D. W. Kinsey, B.Sc.

Chemical Engineer: Mr. J. D. Stevens, B.E. (Chem. Eng.).

Dr. A. D. G. Powell, a Sydney graduate with honours in organic chemistry, who took his doctoral studies under Prof. A. Robertson, F.R.S., Liverpool, is at present at the University of Wisconsin, Madison, U.S.A., on a post-doctoral scholarship. He will return to Australia early next January.

Mr. Lincoln has had extensive experience, particularly in analytical chemistry. During the war he was head of the Explosives Factory laboratories at Mulwala. This was followed by five years' research work on enzymes at the Baker Medical Research Institute, Melbourne. Lately he was in charge of the analytical laboratory for Associated Pulp and Paper Mills Limited, Burnie.

Mr. Stevens, an ex-member of R.A.A.F. air crew, completed his studies following the war, and since then has had experience in plant engineering and developmental work with Email Limited and D.H.A. (N.S.W.) Pty. Ltd. Mr. Kinsey has been with M.B.T. Research Laboratory Pty. Ltd. since he graduated from the Uni-

versity of Sydney this year, and is engaged in biochemical research.

The building of the new laboratory is well under way, and it is hoped that by the end of the year a move may be made from the present temporary accommodation.

We are also informed that Dr. Bottomley has accepted the invitation of Mr. W. A. Ashton, President of the Council of Australian Food Technology Associations, to act as his nominee on the Food Standards and Food Additives Committees of the National Health and Medical Research Council.

#### **PRESCRIPTION PROPRIETARIES CARD SERVICE**

The 15 cards issued for the month of September, 1955, dealt with the following products:—

C : 110	Calurgy
D : 69	"Dexyral"
D : 70	Duostab
D : 71	Dactil with Phenobarbital (Lakeside)
F : 25	Felicur
G : 16	Graneodin with Benzocaine Lozenges
K : 11	Kaomycin
L : 22	Lederplex Vitamin B Complex Liquid
P : 138	Piptal (Lakeside)
P : 139	Pectolin Cough Syrup
P : 140	Proxyl Syrup
R : 26	Romilar Syrup
R : 27	"Romilar" Tablets
S : 80	Selsun Sulfide Jelly
V : 44	Vitasprin

Subscription (£3/3/-) to the P.P. Card Service for 1955 (including the new Index Book) may be entered at any time. Renewals or new subscriptions, accompanied by cheque, should be addressed to The Manager, "The Australasian Journal of Pharmacy," 24 St. Francis street, Melbourne.

A few sets of the 1954 cards (£3/3/- per set) are on hand. We regret the cards of earlier years—1951, 1952 and 1953—are now out of print.

#### **P.A.T.A. OF N.S.W.**

Notified 31/8/55—

##### **General Section: Addition**

Rocke, Tompsitt & Co. Ltd.

Size	Retail		Wholesale
100's	9/6	Yeaston Plus . . . . .	84/- doz

##### **Chemists' Section: Addition**

Menley & James (Australia) Ltd.

25's	7/6	Daprisal Tablets . . . . .	60/- doz.
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##### **General Section: Alterations**

World Agencies Pty. Ltd.

Small	2/3	Schumann's Mineral Spring Salts	20/3 doz.
Large	3/9	Schumann's Mineral Spring Salts	33/9 doz.

##### **Chemists' Section: Alterations**

D.H.A. (N.S.W.) Pty. Ltd.

No. 1	3/3	Eucresol (Elliotts) . . . . .	26/- doz.
No. 2	4/2	Eucresol (Elliotts) . . . . .	33/- doz.
No. 3	6/-	Eucresol (Elliotts) . . . . .	48/- doz.
	19/6	Eucresol Lamps . . . . .	156/- doz.

Remove Pnenodren (Tablets).

Notified 7/9/55—

##### **General Section: Addition**

William R. Warner & Co. Pty. Ltd.

Size	Retail		Wholesale
3 oz.	2/6	Listerine Antiseptic . . . . .	22/6 doz.
7 oz.	4/9	Listerine Antiseptic . . . . .	42/9 doz.
14 oz.	7/6	Listerine Antiseptic . . . . .	67/6 doz.
Large	1/8	Listerine Tooth Paste . . . . .	13/3 doz.
Double	2/7	Listerine Tooth Paste . . . . .	20/8 doz.

Parcel Advantage: £10 lots 5 per cent, £25 lots 10 per cent. discount. May be assorted with Chamberlain's Tablets and Sloan's Liniment. (Chemists may assort with William R. Warner & Co. Pty. Ltd. products in Chemists' Section.)

## **Student Activities**

### **SYDNEY UNIVERSITY PHARMACEUTICAL ASSOCIATION**

As the University has been on vacation for the past four weeks, there is little to report on activities in N.S.W. during August, although at the last S.U.P.A. Committee meeting, held on August 11, some future activities were planned.

Mr. Fegent, President, and Mr. Powell, Vice-President, of the Pharmaceutical Society of N.S.W., were guests at our last Committee meeting, and were very interested in the arrangements to date for the next Congress. They joined in the general discussion, and made some very helpful suggestions, especially concerning activities for the second week. We were very grateful to them for giving up their time to attend the meeting, and for their suggestions.

Besides coming to a few more concrete arrangements regarding Congress, other business discussed included a letter from the S.R.C. regarding transport concessions. This dealt with improvements in the existing conditions so that pharmacy students were not affected. It was suggested that student support could be aroused by publicity in "Mortar Monthly" to recommence agitation for transport concessions for pharmacy students through the S.R.C.

The Financial Report showed S.U.P.A. to be in a fairly good financial position, but we expect a fair drain on resources this year, with future activities, and the balance of the N.U.P.S.A. subsidy has still to be paid. Finances have been handled very well by Jim Hayes this year, and S.U.P.A. is paying the full 5/- levy to N.U.P.S.A. this year.

There were also three other visitors—all ex-students—at the meeting, Rodney Johns, Val Gurd and John Tucker. They put forward the suggestion of forming a Pharmacy Younger Set, with a view to getting ex-students together and to put part of the proceeds towards Congress. They suggested that immediate action would have very good results, while many of the recent ex-students were attending Prac. classes for the Board Final. The suggestion was wholeheartedly welcomed, especially by ex-students of the Committee, and adopted.

Future activities were discussed, and it was decided to hold a picnic on September 16, with Robyn Baird, Frank Payne and Phil O'Grady to make arrangements. A sub-committee to make arrangements for the Mat. Med. dinner was also elected, to have arrangements well under way before the hectic last minute rush before the exams.

We hope to be able to give a fuller report of activities next month, now that the vacation is over. No doubt there will be plenty to report on the picnic, such as valiant attempts to row down the river in a slowly leaking boat with one and a half oars and losing the tin for baling out water half-way there (personal experience on my first pharmacy picnic).

Just a final reminder to keep January free for your holidays and come to Congress in N.S.W. Incidentally, application forms have just been completed and should be available in all States soon, so get yours in early and we will see you in Sydney in January.

### **WESTERN AUSTRALIAN PHARMACY STUDENTS' ASSOCIATION**

What a night it would be if some seventy to eighty students and friends were let loose in a barn! And what a night it was! The once bare, formal little hall was skilfully transformed into a typical barn. Straw, birds' nests, old shoes, horse saddles and spare sections of the skeletal system occupied every available space.

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*Further information gladly supplied*

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## First they see it



*This outstanding display is at O. W. Thomas' Pharmacy, The Corso, Manly, N.S.W.*

## Then they buy it

**Mr. O. W. Thomas of the Corso, Manly, has really proved that mass display sells Kleenex and Kotex.**

In the past he was the biggest volume seller of Kleenex and Kotex in the very progressive Manly Shopping area.

Despite these already high sales figures, when he created mass displays such as shown here, sales jumped over five hundred per cent. Mr. Thomas is pretty keen on Australian Cellucotton products these days — especially when he considers the high margins of profit that increase on big orders. (Mixed orders of Kleenex and Kotex qualify for discounts, too.)

### COULD YOU USE THESE DISPLAY IDEAS?

- ★ Make the five kinds of Kotex belts in their dispenser a regular feature of your display.
- ★ Try using a solid wall of Kleenex as a background for cosmetics displayed in your window.
- ★ The cold season isn't over. Spring colds and Hay Fever are now the threat. Display Kleenex with cough and cold remedies.



*This island stack of pockets puts Kleenex within easy reach.*

Coloured lights silhouetted a mass of happy characters whose presence was certainly not to cope with barnyard chores. Clad in the brightest of colours and the most weird creations and stimulated by the odour of freshly cut hay coming from the kitchen, the enthusiastic crowd danced away the hours. A delicious supper was served, confirmed the following day by a sudden increase in the sale of indigestion remedies. The two strange looking specimens, Horace and Friend, who created much interest during the evening, owe their existence to our President.

Such was the barn dance held at Mt. Lawley Tennis Club on August 25. All present agreed on the social success of this event, and are anxiously awaiting the next form of entertainment organised by W.A.P.S.A.

Our monthly student paper has taken a "new look." Rumbles Ltd. has now published "The Script" in magazine form, complete with cover. The latter is white, displaying the W.A.P.S.A. badge in blue. It is most attractive and will, no doubt, create keen interest among the students. The Editor, Ron Dymock, and the Sub-Editor, Gerry Cohen, will accept any general material suitable for publication.

Suggestions for raising funds to send delegates to Congress are urgently required. It is feared that walking to Congress will lower our dignity, and also our shoes.

#### QUEENSLAND PHARMACY STUDENTS' SOCIETY

Our Student Society activities have slowed down appreciably owing to the frightening closeness of our exams.

The annual football match and barbecue was voted "best ever" by all those who attended.

The game got away to a hilarious start when the ref. forgot his whistle and a bicycle bell was substituted. The referee had the bell firmly screwed into his left thumb, in such a manner that he could operate it quite easily with one hand. This left him a free hand with which to defend himself if need arose.

Three minutes after the start most of the players were flat on their backs, chests heaving, and lungs nearly bursting. The only thing that kept most of us going in such moments of exhaustion was the hearty barracking of femmes from the side line.

Combined First and Second years seemed to have more staying power than the Third year players and early in the afternoon looked a certainty. Phil Haberman, Peter Harris and Terry Parer played well and each scored a try, two of which "Doc" Pope converted.

The match consisted of four quarters, each of allegedly 15 minutes. This time, however, gradually dwindled as time passed and all became sorer and stiffer. The final "quarter" ended after 5 minutes of terrific play.

Final Year stars were Scarabosio, Valmadre and Hoffman. Scarabosio and Hoffman scored tries and "Scara" converted.

After the match ended we collected the scores of all our official scorers and averaged the day's results as:

Combined First and Second 13 d. Third Year 8.

Twenty-four eager pharmacy students then set about making a barbecue fire. Henry Valmadre's 15-cwt. truck was quickly emptied of its load of timber and a roaring blaze resulted, over which a few of the too eager members reduced their tea to burnt offerings. The more cautious types, who waited awhile, enjoyed cooking over a glowing bed of red-hot coals.

Hungry pharmacists consumed everything from raw steaks (ask "Scara") to burnt toast and from strings of saveloys to pots of beer. Just as well the Mist. Blsin. Sed. was handy next day. After all had eaten much more than elegant sufficiency more logs were thrown on the camp fire and all the songs imaginable were sung, slaughtered or otherwise misused. The longest non-stop singing performance went to Norrie Lightfoot, whilst "Doc" Pope entertained all by drinking (we

won't say what) whilst standing on his head, thus defying the laws of gravity.

Our thanks go to the organisers, Henry Valmadre (for the firewood) and "The Boys" (for the liquid refreshments).

Queensland students are getting all "Congress-minded," and are by fair means or foul getting their holidays arranged so as to get Jan. 3 to 17 in Sydney. Seven Queensland students have lodged their applications and our Secretary, Miss Norrie Lightfoot, and our President, Mr. Brian Page, have been unanimously elected as our official delegates.

Q.P.S.S. is at last showing some forethought as to text books. Our text book officer, Jan McCabe, is buying in £130 worth of B.P.'s to supply to eager First Years at the start of 1956. Good move, Jan.

Another step in the right direction is being taken by a special committee which is being formed to print what we are going to call our Orientation Paper, which includes: An Introduction to Pharmacy; Requirements of a Pharmacy Student; What a Student Society Can Offer; four stacks of other vital information that, under the present system, it takes months of bitter experience to find out.

It will be of interest to country students reading this article that a special section will deal with helpful hints for the country student, who finds him or herself alone in a strange city, at a complete loss as regards such matters as part-time jobs, suitable lodgings, reputable firms from whom to buy apparatus, etc.

A copy of our booklet is to be sent to every country student as soon as it is compiled. Booklets are also to be made available at the Technical College for first-year students.

A reminder to pharmacy students that an Associate Membership of the Pharmaceutical Society is available for £1/1/- per annum. Some of the advantages of becoming an associate are:

1. Monthly copy of the Professional and Ethical Bulletin.
2. The Associate may attend general meetings and lectures held by the Society.
3. On becoming registered, he or she then becomes a full member (M.P.S.) without having to pay an entrance fee of £4/4/-.

#### SOUTH AFRICAN RECIPROCAL ARRANGEMENT

There has been for many years a reciprocal arrangement between the South African Society and the Pharmaceutical Society of Great Britain. In 1936 the Schlesinger organisation attempted to establish a 50-unit chain of multiple-store type pharmacies; the effort was costly and it failed dismally. What limited period of activity it did enjoy in the pharmaceutical field was partly due to about thirty pharmacists going from Great Britain to act as managers. Many of them are still in the Union, but several came back. More recently, immediate post-war conditions in the United Kingdom stimulated a steady, if small, flow of pharmacists to the Union, but this practically dried up as the demand at home increased for pharmaceutical personnel and service. On the other hand few South African pharmacists sought registration in England. Nowadays the traffic seems to have slipped into reverse. Our correspondent in South Africa reports that many young pharmacists are making their way overseas and there must be regularly something like a score of them engaged in one sphere or another of pharmacy in Great Britain. They spend some time travelling in Europe and eventually return to South Africa. Their experience in British laboratories and institutions is known to be of great value to them and, when they get back, very useful to the South African pharmaceutical industry. Our correspondent says that in view of significant changes in the systems of training and education of both countries during the last ten years or so, it would not be surprising if the reciprocity arrangements undergo some revision.—"Pharmaceutical Journal," February 19, 1955.

# Commonwealth and State News

## COMMONWEALTH

### PERSONAL and GENERAL

#### ROYAL AUSTRALIAN ARMY MEDICAL CORPS

##### Pharmaceutical

The Short Service Commission granted to 3/40044 Captain J. A. M. Noonan is extended until June 30, 1956.

#### CLINICAL THERMOMETERS

The Standards Association of Australia announces the endorsement of British Standard No. 691-1953, Clinical Maximum Thermometers, subject to amendments to meet Australian conditions, as Australian Standard No. 10, Part 4, Section 1-1955.

This endorsement supersedes a previous endorsement of the 1936 edition of the British Standard. The amendments for Australian conditions deal with provisions to bring thermometers from non-British sources into the scope of the specification, and for provision of cases when these are required by the purchaser.

The main difference from the earlier edition is the elimination of time designations such as "½ minute" and "1 minute." There has been considerable criticism of these time designations on the grounds that they are very misleading. In actual use, with varying conditions of the patient and the method, a so-called "½ minute" thermometer might in some circumstances require well over a minute to record a true temperature.

So important are the implications for the medical profession and hospitals, as well as the general public, that a special clause has been inserted requiring a printed slip to be supplied with each standard thermometer, emphasising that the thermometer should be kept in place sufficiently long to obtain a true reading. The printed slip must include the strong expression, "To avoid the danger of misleading the user, no period of time is marked on British Standard clinical thermometers."

Copies of the endorsed B.S. 691 can be purchased from the Standards Association of Australia, Science House, 157 Gloucester street, Sydney, or from branch offices in all capital cities and at Newcastle. The price is 2/6.

#### PRICING OFFICERS' CONFERENCE

Pricing officers of the State Branches of the Federated Pharmaceutical Service Guild attended a conference at Guild House, St. Francis street, Melbourne, on August 24-25, 1955.

Representatives who attended were Messrs. N. F. Keith (V.), K. E. Thomas (N.S.W.), A. B. Chater (Q.), G. F. K. Scott (S.A.), W. G. Lewis (W.A.). In addition, Messrs. R. M. Burnett and S. J. H. Reid, of the Guild's Pricing Bureau, together with the Federal Secretary (Mr. T. B. Evans).

Matters discussed will form the basis of a report to the Federal Council, when recommendations from the conference will be discussed by Federal delegates.

#### GUILD HOLDS FIRST FEDERAL TRADE AND COMMERCE CONFERENCE

##### Two-day Meeting at "Guild House," Melbourne

On August 22 and 23, 1955, at the invitation of the Federal Council of the Guild, the Chairman of each State's Trade and Commerce Sub-Committee conferred with Mr. R. G. Ross, Guild Federal Merchandising Manager, and Mr. C. B. Watson, his assistant.

The representatives of the States were:—

Queensland:	J. J. Delahunty, Esq. L. G. Hall, Esq. (observer)
New South Wales:	R. W. Feller, Esq.
Victoria:	W. R. Iliffe, Esq.
Tasmania:	C. A. Robertson, Esq.
South Australia:	G. F. K. Scott, Esq.
Western Australia:	R. W. Dalby, Esq.

Before dealing with the agenda, Mr. Ross, on behalf of Mr. Watson and himself, joined with the Federal Council in welcoming the delegates to the conference, and said that the idea of holding such a meeting was first proposed by Mr. Ray Feller, of New South Wales. Mr. Ross readily agreed to this suggestion, and the meeting had the "blessing" of the Federal Council.

Mr. R. W. Feller was elected chairman of the conference.

During the conference many subjects were dealt with, and as remits had been received from the States



CONFERENCE OF FEDERAL & STATE GUILD PRICING OFFICERS

Seated (left to right): Messrs. W. G. Lewis (W.A.); T. B. Evans, Federal Secretary; A. B. Chater (Q.); C. A. Robertson (T.); N. F. Keith, Federal Pricing Supervisor (V.); R. M. Burnett, Officer in Charge Pricing Bureau (N.S.W.); K. E. Thomas (N.S.W.). Standing: Messrs. G. F. K. Scott (S.A.); S. J. H. Reid, Officer in Charge Pricing Bureau (V.).

—K. G. Attiwill photograph.



**Federal Trade and Commerce Conference in session at Guild House.** Extreme right: Mr. R. Feller, Chairman of the Trade and Commerce Sub-Committee of the New South Wales State Branch Committee, who was Chairman of the Federal Conference. Front row: Messrs. J. J. Delahunty (Q.); L. Hall (Q.); R. G. Ross, Federal Merchandising Manager; Miss P. Curphey, Secretary. Back row: Messrs. R. W. C. Dalby (W.A.); W. R. Iliffe (V.); C. A. Robertson (T.); G. F. K. Scott (S.A.); C. B. Watson, Assistant Federal Merchandising Manager.

—K. G. Attwill photograph.

certain recommendations have been made to the Federal Council for acceptance or otherwise at its meeting in October.

Mr. Ross and Mr. Watson gave a complete review of all "Chemists' Only" lines and "Gilseal" products, employing specially prepared charts in order that the delegates could see pictorially what had been achieved since the Guild Federal Merchandising Service commenced operations.

Great interest was shown by the representatives of all States, and all products were discussed fully with a view to increasing members' support. It was revealed at the meeting that the sales of "Chemists' Only" and Guild contract lines introduced by the Guild Merchandising Service have now reached a total of 36½ million units, which has brought Pharmacy well over £4 million turnover.

Mr. Feller presented a paper on retail merchandising and current trends and their effect on retail Pharmacy, which was of great interest.

Mr. Ross followed this with further comments, which were again illustrated by graphs based on a recent survey of retail pharmacy.

It was the unanimous opinion of all delegates that the conference had been extremely beneficial, and a recommendation has been made to Federal Council that it be held annually.

All delegates will report back to their State Branch Committees, and then the information gathered by the conference will be disseminated to all members.

## GUILD'S PEAK YEAR OF ACHIEVEMENT

### Federal President's Review

Growth of the National Health Services and their implications to Guild members were discussed by Mr. Eric Scott, President of the Guild, in two recent addresses. The first was to the Annual Meeting of the Tasmanian Branch of the Guild, held at Campbelltown on Sunday, August 21. Mr. G. M. Fleming, President of the Branch, was in the chair. The second was to the South Australian Branch, held on August 30. Mr. Walter C. Cotterell, retiring President, was in the chair.

In both addresses Mr. Scott reviewed the Guild members' contact with the Commonwealth Government in relation to pharmaceutical benefits, the Pensioners' Medicine Scheme and the Repatriation Dispensing Claims. Mr. Scott expressed the hope that the new edition of the A.P.F. would be made the standard for prescriptions dispensed under the Pensioners' Medicine Service.

Referring to the Pensioners' Medicine Service, Mr. Scott said that the original group of persons entitled to P.M.S. privileges was growing every year as the Government made the means test more liberal. Because of the extemporaneous dispensing of prescriptions, the P.M.S. scheme helped to preserve the professional status of pharmacists. It would be a great feather in Pharmacy's cap if the A.P.F. was accepted by the Government as the pensioners' formulary. With the Government work it was quite easy to rest content. Chemists did not think that the scheme would remain static. Such Government schemes always develop. The Commonwealth Health Department was growing. Com-



**Informal group at the Guild Federal Trade and Commerce Conference at "Guild House."** The Chairman (Mr. Ray Feller, of New South Wales) in foreground, and delegates pause during a busy agenda. Others in the group are: Front row: Messrs. J. J. Delahunty (Q.); L. Hall (Q.); R. G. Ross, Federal Merchandising Manager; C. B. Watson, Assistant Federal Merchandising Manager. Back row: Messrs. R. W. C. Dalby (W.A.); W. R. Iliffe (V.); C. A. Robertson (T.); G. F. K. Scott (S.A.).

—K. G. Attwill photograph.



## COMMONWEALTH—Continued

munity hospitals would have their own clinics. Hospitals had taken a tremendous load of the private chemists' business through their own pharmacy departments. That system would grow over the whole of Australia.

"Pharmacy," said Mr. Scott, "must change to meet changing times." He continued: "Our education schedules should change, chemists' own attitudes should change and our merchandising methods should change. We are therefore meeting this challenge very successfully. Newsagents say: 'You are bringing out a magazine in competition against us,' but even if that were true, and it isn't, our answer could be, newsagents sell Aspirin, A.P.C., etc. Everyone sells Pharmacy's lines, and it was time we retaliated.

"The Guild," Mr. Scott went on, "was born as a united body to be prepared for national issues. The bad terms offered in the first instance showed chemists they must forget partisanship and parish politics. Today the Guild is a powerful body. No matter how small the State is, it is equally powerful in the Guild. The Guild constitution protects the smaller States. Every State is equal, and we never forget it. The day when N.S.W. and Victoria get together to smash the smaller States"—(laughter and applause)

A voice: "That will be the day!"

Mr. Scott: "... if N.S.W. and Victoria combined to defeat the smaller States, it would be disastrous. I am proud of the democratic spirit of the Guild. Pharmacy is a small section, but it is giving services to the community second to none."

In Adelaide, Mr. Scott congratulated the South Australian Branch upon its 100% membership, which he described as "a credit to yourselves and to your organisation." Again Mr. Scott warned against the danger "of white anting" of loyalty by partisans within the Guild. He said that the onward movement of a body like the Guild could be partly nullified by the action of a minority, but the Guild continued to gain strength. The past year had been the greatest in Guild history in membership and achievement.

### SUSPENSION OF MEDICAL PRACTITIONER

The following notice was published in the Commonwealth Gazette of September 22, 1955:—

"I Earle Page, Minister of State for Health, hereby give notice, in pursuance of sub-section (1) of section 96 of the National Health Act 1953, that I have suspended until June 27th, 1956, the authority under Section 88 of the said Act of Charles W. Lankester, of 196 Scarborough Beach road, Scarborough, Western Australia, medical practitioner, to write a prescription for the supply of pharmaceutical benefits following investigation and report by the Medical Services Committee of Inquiry for the State of Western Australia established under the National Health Act 1953 concerning the conduct of the aforesaid medical practitioner in relation to his authority and the provisions of the regulations under the said Act.

Dated this eighth day of September, 1955.

EARLE PAGE,  
Minister of State for Health."

### APPRENTICES AND NATIONAL SERVICE

#### Question in Parliament

(Extract from Commonwealth Hansard, House of Representatives, June 9, 1955.)

**Mr. Wight:** Is the Minister for Labour and National Service aware that the Building Workers Industrial Union of Queensland is distributing propaganda among apprentices to the effect that this Government has over-ridden State legislation which provides that time spent by apprentices in doing military training shall be included in the period of apprenticeship? Will the

Minister say whether that suggestion is true? If it is not, will he explain the position to the House?

**Mr. Holt:** My attention has been directed to this matter. It will be understood by all honourable members that a period of apprenticeship is designed to give a status or a capacity to a particular tradesman which will qualify him for engagement in that status or capacity thereafter.

Consequently, under normal circumstances, it is desirable that the full period of apprenticeship shall be served in the occupation for which the person concerned is serving his apprenticeship. The National Service Act provides that, unless the Minister for Labour and National Service otherwise directs, the period during which an apprentice is undergoing military training shall not be deemed to be a period of employment under his contract of apprenticeship.

But in order to cover the position of an apprentice who, while undergoing his period of national service training, is employed in an occupation which would, in effect, give him experience in his calling, I have delegated my powers under that provision to the apprenticeship authorities constituted under the laws of the States.

I understand that in Queensland, as in other States, the apprenticeship authorities count as a part of the apprenticeship period, periods of training in a service mustering or occupation corresponding to the man's apprenticeship trade. This matter was examined by the Commonwealth-State Apprenticeship Committee, which has made a recommendation to us to the effect of which is that at the end of a period of apprenticeship training, if some of the apprentice's time has been taken up in national service training, he shall be subjected to a trade test, and if he shows that he is up to the standards required, he shall not have to serve an additional period of apprenticeship.

I think that that is a sensible solution to this problem. The matter has been brought to the notice of the State Governments by this Government, and we are still awaiting advice from the State Governments about their views on this and other apprenticeship matters.

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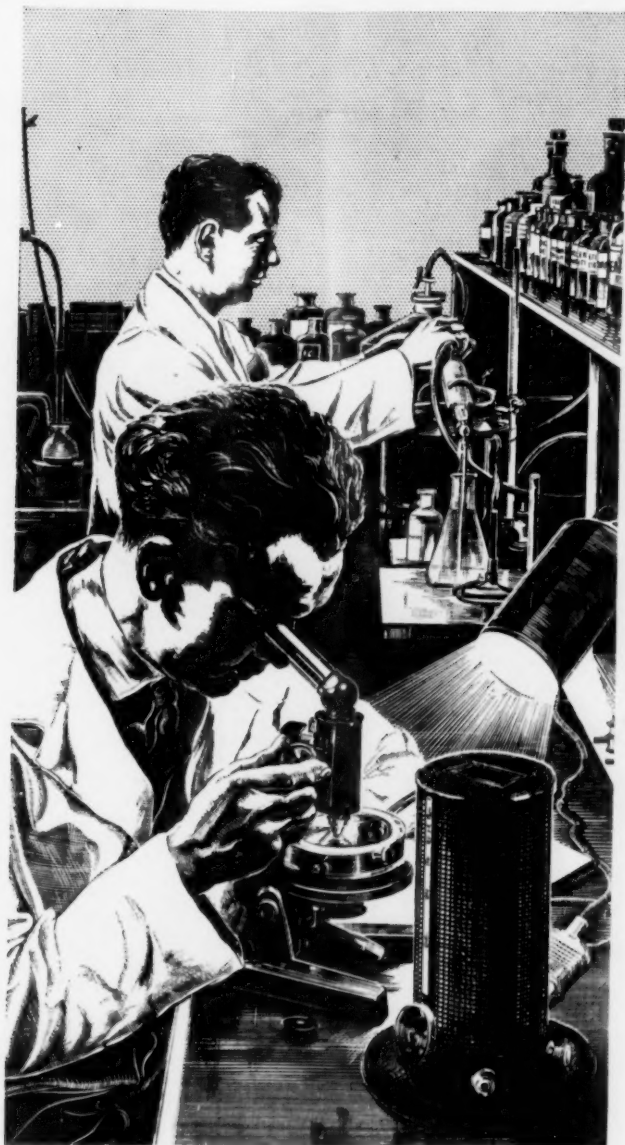
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 16-20 Bridge Street,  
 Sydney, N.S.W.

\* Swift & Co. Ltd.,  
 "Geelong House",  
 26, 28, 30 Clarence Street,  
 Sydney, N.S.W.  
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(Homogenised Mixture of Vitamins A, D, B<sub>1</sub>, B<sub>2</sub>, C and Nicotinamide Abbott)

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# NEW ZEALAND

## PERSONAL and GENERAL

If chemists in Australia are as busy as chemists in New Zealand are, they will excuse this news-letter, which is not as "dressed-up" as it probably should be. In our Pharmacy Journal recently I read with real interest an account of pharmacy education in New South Wales. I have always felt that I was up to date in education matters in Australia, but there are always some details of interest that are overlooked. (I didn't realise, for instance, that entrants were apprenticed before they commenced their academic course. We are advocating studies first and dispensary experience afterwards.) So I am assuming that the progress of our drive for university education will be of interest to you. We set great hopes on the August meeting of the Senate of the University of New Zealand, and seeing that almost a quarter of Senate's debating time was spent on pharmacy, the hope surely was justified. But the results were far from spectacular. Educationists here, as in many parts of the Commonwealth, have awakened up to the specialist demands being made on them, and a matter of principle seems to need clearing up before details are to be settled. Their reasoning seems to be: "Do we go on adding to our courses to help individual professions, or do we attempt a 'technical' university separate from pure sciences and the humanities?" While engineering and law and accountancy have slipped in before this issue becomes large, more demands—veterinary science and pharmacy are the present ones—will soon make the university a mass of small schools rather than a training ground for the education of the "whole man." Academically we can fully appreciate their dilemma, but we feel just a little unlucky that it should loom large just at this critical stage of our drive. (If there's one person in the community other than a clergyman or a doctor who should value the true university training, it is the chemist. How many of you find yourselves called upon to be almost father-confessors?) And so the problem is submitted to another committee—Senates do love these—and the order of reference is wide open again. We will re-submit evidence, and if we convince this group, our raised status is a much surer prophecy because, instead of the committee being "interested parties," it consists of the Pro-Chancellor, the Vice-Chancellor, the Director of Education, a chemistry professor and a lawyer.

Late last year the Pharmacy Amendment Act became law, and early this year Boots (The Chemists) tested the licensing-like clauses by applying for a branch in Christchurch. Counsel for the Guild chemists opposing the application raised the contention that "Boots" were wholesalers—a class not allowed to own chemists' shops under the new legislation—and therefore should be refused permission to open. The Pharmacy Authority has asked the Supreme Court for a decision in this matter of law before he will proceed to a decision on the facts of the case—and the Supreme Court is very busy, and has not yet given its verdict. Meanwhile it is understood that the Amendment Act itself is liable for amendment this session of Parliament. So the fight goes on.

Since March, when antibiotics were released more widely on the Social Security Fund, the average price per prescription appears to have risen from 6/- to about 6/8. This may be a seasonal rise, but the admission of expensive hypertension drugs as well will

probably keep the price up. An intensive price survey is almost completed by Guild representatives, on prescription batches already analysed by Government departments. Although these are 1954 datings, it is hoped that by patient negotiation a more equitable basis of payment may be concluded. (Not necessarily a higher price, but one that can be varied automatically according to agreed formulae.)

We are approaching the stage in advertising where this can be launched nationally. Two provinces at present do group newspaper advertising, co-operating with manufacturers and distributors. This is synchronised with shop and window displays. One province has a well-established radio programme.

Guild Headquarters have now got their retail price lists at a very commendable level. The detail work undertaken by a small staff is tremendous, but is further complicated by Government removal of sales tax from a large number of lines. It hasn't been wise to accept retail price changes automatically because there have been many reductions in margins also. Executives have to be strong men to keep their heads above the rough sea of administrative detail.

Traffic control and dispersion in the larger cities is upsetting the old-established high-rent shops. Their need to compete with the smaller suburban units by providing quick dispensing services at rush periods means that their wage overheads are comparatively high too. Dispensing fees payable by the Government can be keyed only to average costs, so the plight of these city shops is none too bright. Concentration on merchandising has its limits and also its drawbacks in a part-profession, part-business undertaking.

I remember 12 years ago advocating cautious planning because of the imminent changes ahead. We as a generation seem destined to spend our whole life in such a state. But it's a happy challenging state to be in, isn't it?

## ANNUAL REPORT OF THE DIRECTOR-GENERAL OF HEALTH IN NEW ZEALAND

The annual report of the Director-General of Health in New Zealand covering the year 1954-1955 reveals only a comparatively slight increase in payments from the Social Security Fund for Pharmaceutical Benefits.

Total payments for the 12 months for pharmaceutical benefits were £3,047,331. Of this amount £2,952,269 was paid to chemists, £10,068 to medical practitioners, and £84,994 to hospitals. Total payments under this heading in 1953-1954 were £2,919,620 and in 1952-1953 £3,015,833. Total expenditure under all headings for medical benefits during the year 1954-1955—£12,585,435.

Reference is made in the report also to Dangerous Drugs. It was reported that on the recommendation of the Secretary-General of the United Nations the importation into New Zealand of Cannabis Indica for medical use has been discontinued.

Referring to Pethidine, the Director of the Division of Public Hygiene states that experiments throughout the world have shown that Pethidine is as dangerous as Morphine as a drug of addiction. The consumption of Pethidine in New Zealand rose from 8.4 kilogrammes in 1948 to 43.69 kilogrammes in 1951 and to over 91 kilogrammes in 1954. The first Pethidine addict in New Zealand came to notice in 1949, and in the last two years, as a result of the free use of drugs, the number of known Pethidine addicts has increased to 24—more than one-third of the total number of addicts known to the Department. The attention of the medical profession had been drawn to the need for more caution in the use of the drug.



# VICTORIA

## PERSONAL and GENERAL

### State News

Members in Victoria desiring publication of personal items of interest are invited to write or telephone details to the Editor (FJ 5161).

**Mr. V. D. Preston** conducted the A.M.C.A.L. Stand at the Royal Melbourne Show this month.

**Mr. A. H. S. Caitanach** has opened a new pharmacy at Merlynston, where Mr. S. Nelson is manager.

**Mr. J. F. Brumby** will be in charge of Mr. W. J. Shaw's pharmacy at Moe, during his illness.

**Mr. I. F. Moller** has been appointed manager for Mr. C. M. Davies, Morwell.

**Miss P. Barrow** has been appointed Manager, U.F.S. Dispensary, Footscray West.

**Miss J. M. Elder** has been appointed Manager, U.F.S. Dispensary, Buckley street, Essendon.

**Mr. and Mrs. R. R. Appleton** have opened a new pharmacy at 800 Nepean Highway, Moorabbin, with Mr. M. R. Higgins in charge. Mr. C. McEathie has been appointed manager at 908 Nepean Highway.

**Mr. G. T. Peterson**, Ph.C., F.P.S., F.S.B.M., Technical Sales Manager of Sigma Co. Ltd., has been elevated to the status of Fellow of the Institute of Sales and Business Management (Aust.).

**Mrs. N. Cuthbertson** left for England in the "Oronsay" on August 30. She expects to spend about nine months abroad, and will visit the Continent.

**Mr. H. D. B. Cox**, Chairman of the New South Wales Local Board of P.D.L., called at "Guild House" on September 23, and discussed P.D.L. affairs with the General Secretary of the company, Mr. T. G. Allen. Mr. Cox was in Melbourne for the opening of Show Week, a visit he has made annually for many years, linked with his special interest in Jersey cattle.

**Mr. E. J. Nicholas**, Lecturer to Pharmacy students at Perth Technical College, has been some time in Melbourne after attending meetings of Section "O" (Pharmaceutical Science). Opportunity was taken by Mr. Nicholas to be present at the Practical Pharmacy Final Examination being conducted by the Pharmacy Board, and to discuss matters relating to examinations, the Victorian curriculum, etc., with the members of the College of Pharmacy staff.

**Wedding.**—Miss Esther Beverley Cohen was married to Mr. Eric Cecil Gorr at the Synagogue, Charnwood grove, St. Kilda, on August 10. Both the bride and bridegroom have a close link with pharmacy. The bride, who qualified at the end of 1954, is the daughter of Mr. and Mrs. H. J. Cohen, of Caulfield. Mrs. Cohen is herself a qualified chemist. The bridegroom is a nephew of Mr. R. Gorr, of Shepparton, and Mr. H. Gorr, of Kyabram. Miss Cohen was apprenticed to Mr. N. F. Keith, Acting President of the Victorian Branch of the Guild, who was amongst the wedding guests. Several of Miss Cohen's fellow students were

present at the wedding and at the reception which followed at Stanmark, East St. Kilda.

The marriage of Doreen Morter (qualified 1953) to John Weir (qualified 1954) took place at the Regent Presbyterian Church on September 29. Congratulations!

### MANAGERS AND RELIEVERS: SEPTEMBER LIST

Reliever	Pharmacy
Miss H. J. Aitken	A. J. Baker, Essendon
	L. V. West, Balaclava
Miss L. Adamson	R. S. Eccles, Leongatha
F. Anderson	R. M. Parkinson, Echuca
A. L. Ayscough	V. Israel, Mildura
J. M. Brumby	W. J. Shaw, Moe
Mrs. Cook	J. F. Isaac, Sandringham
J. M. Crawford	C. H. Simpson, Prahran
B. Daniel	W. C. West, Shepparton
J. W. Digby	H. E. Taylor, Dimboola
	J. V. Williams, Nathalia
C. D. Everett	W. C. Gribbin, Mentone
	N. E. Vince, North Carlton
Miss A. Frankel	G. E. Heilbrown, Sunshine
L. F. Gurry	Lloyd & Co., Geelong
K. R. Hall	D. Brown, Port Fairy
	McGibbony & Beaumont, Melbourne
	Marks, Mt. Gambier
B. C. Hornby	G. W. Flude, Armadale
Miss K. Jones	Mrs. W. M. Quinton, Malvern
R. E. F. John	D. E. Robertson, Hastings
J. G. Kellas	W. J. Shaw, Moe
R. V. Khyat	N. D. Myers, Croxton
	J. W. Watts, Moonee Ponds
A. Lourie	J. Boltin, Footscray
	J. Boltin, Footscray
J. H. Lakeland	G. A. Saunders, Glenferrie
Miss E. J. McDonald	P. Genery, Hampton
Mrs. N. Marshall	K. A. Hansen, Kew
Miss Moorehead	A. W. Marriott, Collingwood
D. Martin	C. H. Semmens, Sandringham
Miss D. Morter	F. H. Franklin, Ballarat
Miss F. I. C. Morrison	J. E. Coates, Thornbury
	E. S. Bradley, Footscray
Miss M. Noonan	E. S. Bradley, Melbourne
L. O'Connor	Miss N. Downton, Brighton
	N. E. J. Zerbe, Hampton
Miss N. R. Pedrazzi	R. E. Holdsworth, Richmond
	Wilmington's Pharmacy, Melbourne
	A. V. E. Coates, Melbourne
	J. E. Long, Toorak
S. Schwarz	J. E. Coates, Thornbury
Miss M. Shanahan	H. S. Hope, Ascot Vale
	U.F.S. Dispensary, Oakleigh
	Marshall's Pharmacy, North Carlton
	Miss Hornsey, Moonee Ponds
Miss A. E. Steinberg	A. N. Dean, Hawthorn
Miss M. Thomas	Miss M. A. Paxton, East Kew
K. Wanden	W. J. Langtry, Moonee Ponds
C. Trethowan	E. Abfalter, Elmore
L. M. Wilson	A. W. Harris, Norlane
Mrs. P. Woodgate	W. F. Carroll, Melbourne
Miss C. Younes	Harlem & Harlem, Melbourne

## VICTORIA—Continued

### Business Changes

The following pharmacies have changed hands—

**Mr. J. Napoli** has purchased from **L. C. Player**, 229 Victoria street, West Melbourne.

**Miss A. M. MacKenzie**, from **Mrs. Rattenbury**, 122 Wellington street, St. Kilda.

**Mr. W. Swedosh**, from **L. W. and S. G. Wilkinson**, 477 South road, Moorabbin.

A partnership has been formed by **Miss I. U. Hespe** and **Mr. M. S. Kennedy**, who will trade under **Woolcock's Pharmacy**, St. Kilda, as usual.

**Mr. R. H. Linton** has taken his son, **Mr. C. R. Linton**, into partnership, and they will now trade as **R. H. Linton & Son**, Ivanhoe.

**Mr. J. E. Clementson** advised that his pharmacy at Bell street, Preston, was closed in February, and the pharmacy at Wood street, East Preston, was closed in September.

### NEW PHARMACIES

New pharmacies have been opened at the address indicated—

**Mr. P. J. Tissot**, Subway, Degraes street, Melbourne.

**Mr. A. S. H. Cattinach**, 1000 Sydney road, Merlynston.

**Mr. A. B. Simpson**, 939 Whitehorse road, Box Hill.

**Mr. A. R. Osbourne**, 20 Edwardes street, Reservoir.

**R. R. and J. W. Appleton**, 800 Nepean Highway, Moorabbin.

**Mr. G. C. H. Le Plastrier**, 52 Firebrace street, Horsham.

**Mr. E. M. and Mrs. J. F. De Boos**, Chute street, Diamond Creek.

### OBITUARY

#### Francis Henry Gough

We deeply regret to record the death of **Francis Henry Gough** which occurred on June 27, 1955.

**Mr. Gough** qualified at the Victorian Final Examination in December, 1901, after which he conducted a pharmacy at Echuca for over 30 years.

A brother, **Mr. W. F. B. Gough**, conducted several pharmacies, and was a member of the Pharmaceutical Society of Victoria, of which he was President from 1938-1941.

**Miss Daisy Gough** (later **Mrs. McDougall**) qualified also, and worked for some time in her father's pharmacy at Echuca.

**Mr. Gough** is survived by a widow, a son (**Mr. J. B. Gough**, chemist at Gardenvale) and a daughter, to all of whom we extend our sincere sympathy.

#### Edith Lillian Gertrude Hayward (nee Francis)

We deeply regret to announce the death of **Mrs. E. L. G. Hayward** (nee **Francis**) which occurred on July 1, 1955. **Mrs. Hayward** passed the Final Examination on September 13, 1911, and was registered the following month.

### Felix Tattam

We deeply regret to announce the death of **Felix Tattam**, which occurred suddenly at his home on September 16.

**Mr. Tattam**, who was 55 years of age, qualified in Victoria in 1921. After graduation he was employed for some time with **Martin & Pleasance**, Collins street, Melbourne, and then opened a pharmacy at **Koo-Wee-Rup** (Vic.). He married there, and later took over a pharmacy at Brighton. From Brighton he went to the pharmacy at East Kew which he conducted until the time of his death.

**Mr. Tattam** was a Gold Medallist of the Victorian College of Pharmacy and a Fellow (by examination) of the Pharmaceutical Society of Victoria. He took great interest in Pharmaceutical Society affairs, and seldom lost an opportunity of attending lectures, meetings and conferences. His wide interests and the respect in which he was held locally were demonstrated by the very large attendance of mourners at the service at the Church of St. Paul in East Kew and at the funeral.

**Mr. Tattam** is survived by his widow, three sons—**David**, **Robin** and **Richard**—and three daughters—**Kathleen**, **Jennifer** and **Helen**—to all of whom we extend our sincere sympathy. The eldest son, **David**, qualified at the Final Examination in March, 1953.

### PHARMACEUTICAL MAYORS

**Mr. W. R. Lumley** has been elected Mayor of Chelsea and **Mr. H. M. Samuel** Mayor of Mordalloe.

Our congratulations are extended to both. At the meeting of the Chelsea Council at which **Mr. Lumley** was elected a number of pharmaceutical friends attended and complimented him on his election.

**Municipal Honours.**—After having been returned unopposed at the recent Council elections, **Mr. E. H. Baker**, of Warragul, has been made President of the Shire of Warragul.

### AMENDING PHARMACY BILL

An amending Pharmacy Bill was introduced in the Legislative Council by the Minister for Health, the Hon. **Ewan Cameron**, on September 20. The Minister explained that the measure was a simple one to authorise the Pharmacy Board to charge an annual registration fee of up to £3/3/- as against the maximum of £1/1/- at present permitted. He explained that because of rising costs the Board's income was inadequate, and additional revenue was required. The debate was adjourned until September 21, when the Bill was passed through the remaining stages and transmitted to the Legislative Assembly.

### DISCUSSION GROUP

On September 14, at the College of Pharmacy, a very interesting evening was held in the form of an Open Discussion Night. A small but enthusiastic group of people was in attendance, and it was evident by the number of problems discussed that this type of meeting could become very popular.

Some of the subjects discussed were as follows:—

- (1) Uniformity of male and female salaries.
- (2) Cut lines.
- (3) Revision of retail pharmacists' salaries.
- (4) Prescription card index systems.



## The NAME that has created a Big Impression

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## VICTORIA—Continued

### PHARMACEUTICAL SOCIETY

#### New Office-Bearers

At the meeting of the Council of the Pharmaceutical Society held on September 7, the resignation from the office of President by Mr. Ivan J. Thompson because of ill health was received with deep regret, and members of the Council recorded their sorrow that Mr. Thompson could not continue in office. A special record was made in the Minutes of the valuable service given by Mr. Thompson to the Council.

It was decided to elect a new President and Vice-President for the remaining portion of the Society year, namely until the April, 1956, meeting, and Mr. Eric Scott and Mr. Gavan H. Williams were elected President and Vice-President respectively.

### VICTORIAN CHEMISTS GOLFERS' CLUB

Commonwealth Golf Club was the venue for the September outing of the club, and though the weather broke unpromisingly, it cleared later, and we were able to enjoy a splendid afternoon's golf. A fair muster hit off, and a lot who apparently were weather conscious certainly missed a lovely afternoon. The links were in great order, and each player enjoyed the round.

The winners turned up in the persons of the ever-green "Pip" Appel, nobly supported by his partner, Gordon Collins, who scored 40 points best ball Stableford, a really splendid performance.

The runners-up were T. Fisher and C. Bult with 35 points on a count back from L. Faris and W. Wolfe.

Our next outing will be the C. & D. Open Tournament at Woodlands on Tuesday, October 25, when a large number of entries is expected. This is an open meeting for the trade. Entry forms will be available early in October from wholesale houses or from the Hon. Secretary, R. W. Brodrick, 13 Bay street, Brighton.

### ANNUAL REPORT OF THE CHIEF INSPECTOR DEPARTMENT OF LABOUR AND INDUSTRY

The Annual Report—for the year ended December 31, 1953—of the Chief Inspector of the Department of Labour and Industry has just been circulated.

The report indicates that the number of factories registered during the year was 16,036 with 299,772 employees. The total number of shops registered was 39,876 employing 122,957 persons.

The number of apprentices undergoing training in 1953 was the highest ever recorded.

Reference is made in the report to the changed set-up brought about by the Labour and Industry Act of 1953. This provided for the transfer to the Department of Labour and Industry of administration of several Acts previously administered by other authorities.

During the year 1953 transactions were undertaken for various breaches of Wages Board administrations; 71 of these were successful and 20 were withdrawn.

The summary of transactions shows also that 236 shopkeepers were proceeded against for failing to close at the legal hour for closing, and fines and costs amounting to £844 were imposed.

Fourteen persons were prosecuted for occupying unregistered shops. Fines and costs in these cases amounted to £53.

The total number of chemists' shops registered in Victoria was 1031 and the total number of employees in these shops was 3728.

Under the factories section 142 manufacturing chemists were registered. These employed 2522 males and 997 females—total employees 3519.

### WAGES BOARD AWARDS

New rates (all per week of 40 hours), as under, payable as from the beginning of the first pay period in May, 1955, have been published in the Government Gazette.

#### CHEMISTS SHOPS BOARD

##### (a) Apprentices

	s.	d.
1st year	50	6
2nd year	67	0
3rd year	91	0
4th year	112	6
5th year	165	6

##### (b) Juvenile Workers

	s.	d.
16 years of age	46	6
17 years of age	73	6
18 years of age	81	0
19 years of age	98	6
20 years of age	113	0

##### (c) Other Employees

	Males	Females
Manager Pharmaceutical Chemist, i.e., a qualified pharmaceutical chemist in sole control of a shop and who is responsible for general buying and all necessary business carried out therein	£18 15 0	£15 15 6
Chief Pharmaceutical Chemist, i.e., a qualified pharmaceutical chemist who is responsible to the Pharmacy Board, but who is not responsible for general buying or all necessary business carried out in the shop	17 8 6	14 9 0
Pharmaceutical Chemist, i.e., a qualified pharmaceutical chemist other than a Manager Pharmaceutical Chemist or a Chief Pharmaceutical Chemist	16 2 6	13 3 0
Unregistered Pharmaceutical Chemist, i.e., a person who has not qualified as a pharmaceutical chemist, but who has completed his or her apprenticeship as recognised by the Pharmacy Board	13 15 0	10 15 6
Shop Assistant, i.e., a female employee engaged in selling medicines, drugs, or medicinal preparations, but not engaged in dispensing or compounding same	—	9 13 0

A relieving Pharmaceutical Chemist called upon to relieve the proprietor or manager of a chemist's shop shall be deemed to be, and be paid at the rate provided for a Manager Pharmaceutical Chemist whilst so required to act.

#### HOSPITAL PHARMACISTS BOARD

##### Apprentices

	£	s.	d.
1st year's experience	23	1	6
2nd year's experience	5	11	6
3rd year's experience	8	1	0
4th year's experience	10	8	6
5th year's experience	12	12	0

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New treatment now wholly manufactured in Australia.

## PEP-ULSADE

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### CAMBRIDGE LABORATORIES

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To all Chemists . . .

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## ANTISEPTIC POULTICE OINTMENT

is now available from all  
WHOLESALE DRUGGISTS

Satisfied users are publicising its healing qualities.  
Daily demand is increasing.

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If you work for it—it will certainly work for you and earn good profits. You can recommend and sell it to every householder—it will never let you down.

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"Point-of-sale" advertising means an immediate upward trend in the sales chart.

The creation of sales-winning displays, backed by the kind of merchandising counsel that only long experience makes possible is pre-eminently a matter for Royco, acclaimed the national leaders in point-of-sale display merchandising.

Royco offers attention-winning sales-producing services, each of which can help you achieve greater dominance in your particular market.

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**Constructional Division:** Shop fitting—store layout • Display units • Cut-out letters (any material) • Exhibition stands • Window units.

## VICTORIA—Continued

### Other Employees

#### Chief Pharmaceutical Chemist—

(i.e. A pharmaceutical chemist in charge of the pharmacy department of a hospital.)

(a) Where four or more full time pharmaceutical chemists are normally employed	£25	5	0
(b) Where two or three full time pharmaceutical chemists are normally employed	23	10	0
(c) Where he is the only pharmaceutical chemist employed	22	15	0

Senior Pharmaceutical Chemist . . . . . 21 5 0

Where three or more full time pharmaceutical chemists are normally employed, one shall be a Senior Pharmaceutical Chemist, and shall take charge of the pharmacy department during the absence of the Chief Pharmaceutical Chemist.

#### Other Hospital Pharmaceutical Chemist—

1st year's experience as such	17	15	0
2nd year's experience as such	18	10	0
3rd year's experience as such	19	5	0
Thereafter	20	5	0

### DISPENSARIES BOARD

#### Apprentices and Juvenile Workers

##### (a) Apprentices

	s.	d.
1st six months' experience	45	6
2nd six months' experience	69	6
3rd six months' experience	93	9
4th six months' experience	117	9
5th six months' experience	142	0
6th six months' experience	165	9
7th six months' experience	187	6
8th six months' experience	233	0

And thereafter the appropriate rate prescribed herein under the heading "Other Employees."

##### (b) Juvenile Workers

	s.	d.
1st six months' experience	45	6
2nd six months' experience	58	0
3rd six months' experience	79	3
4th six months' experience	101	3
5th six months' experience	116	0
6th six months' experience	137	3
7th six months' experience	159	0
8th six months' experience	180	6

And thereafter the appropriate rate prescribed herein under the heading "Other Employees."

#### Proportion (in any place)

(a) Apprentices: One apprentice to every three or fraction of three workers receiving not less than 327/- per week.

(b) Juvenile Workers: One juvenile worker (i.e., a shop assistant not engaged in dispensing or compounding medicines, drugs or medicinal preparations, and who is under the age of 21 years) may be employed in any dispensary.

### Other Employees

	s.	d.
Chief pharmaceutical chemist assistant	367	0
Pharmaceutical chemist	327	0
Unqualified assistant	309	0

Female shop assistant not engaged in dispensing or compounding medicines, drugs

(i) With less than 3½ years' experience in a dispensary	196	0
(ii) All others	207	0

## PHARMACY BOARD

## Monthly Meeting

The Pharmacy Board of Victoria met at 360 Swanston street, Melbourne, on September 14, at 10 a.m.

**Present.**—Mr. H. A. Braithwaite (President) in the Chair; Messrs. S. J. Baird, A. W. Callister, N. C. Manning, W. R. Iliffe, A. W. McGibbony, W. Wishart, F. C. Kent (Registrar) and T. G. Allen (Minutes Secretary).

**Correspondence.**—Formal correspondence was tabled and the following letters were dealt with:

From a country chemist, submitting foreign prescription for translation. Translation made by member of staff and forwarded.

To a country chemist, in reply to an inquiry stating that it was not possible for the Board to grant permission to leave a pharmacy open in charge of an unqualified person even if dispensing was not performed during the owner's absence.

To storekeepers at Neerim South, advising that licences as general dealers in poison cannot be renewed after December 31, as there is now a chemist in business in the town.

From a suburban chemist, forwarding declaration regarding shortages in Dangerous Drugs following burglary.

From a number of country chemists, giving undertakings to observe the requirements of Regulations following a communication from the Board.

From Mr. Sydney Hull, submitting that the Board consider generally the position that will develop should the Commonwealth Parliament legislate to implement the narcotic control agreement of the United Nations Organisation by setting up Federal controls. It was resolved that Mr. Hull be informed that the matter is being carefully watched.

From the executors of the estates of four deceased pharmacists applying for extension of time in which to carry on the pharmacies. Extensions granted.

From a chemist, prescription record card for approval. Approval given, subject to card system being kept in conjunction with daily work book required under the Regulations.

From several overseas applicants, submitting details of qualification and requiring details of registration in Victoria. The recommendations of the sub-committee as presented by Mr. A. W. Callister were considered and adopted.

From a proprietary medicine distributor, inquiring whether a preparation containing ingredients listed in Part II and Part III of the Second Schedule required two sets of labels. To be advised that provided the labelling required for preparations in Part II of the Schedule appears the Board would not require in addition the wording stipulated for preparations in Part III.

From the Department of Health, seeking Board's comment regarding any further ban on heroin. Resolved that the Department be informed that in view of the diminishing use of the drug and the fact that any addiction arising was remote the Board considers no further prohibition necessary at this stage.

**Formal Business.**—The following formal business was transacted:

**Applications for Registration.**—Bryan Peter Cosgrave, Leslie Graham McKenzie (Final Exam., Vic.), Annette Claire Fleming (Cert. Ph. Bd. of N.S.W.).

**Restorations to the Register:** Rita McCombe, Gerald Francis Foley.

**Erasures from Register:** Edith Lilian Gertrude Francis (dec. 1/7/55).

**Changes of Name Notified:** 3.

**Managers and Relievers Notified:** 65.

**New Businesses Opened:** 2.

**Apprenticeship Indentures Registered:** 1.

**Apprenticeship Indentures Transferred:** 2.

**Apprenticeship Indentures Suspended:** 3.



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## VICTORIA—Continued

Certificates of Exemption Issued: 1.  
Certificates of Identity Issued: 8.  
Opium Permits Issued: 9.  
Business Changes Notified: 6.  
Permits to Purchase Cyanide Issued: 2.  
Licences as General Dealers in Poisons Issued: 6.  
Police Reports re Poisonings: 1 "Vallo" Weed Killer—fatal; 1 sleeping draught—not fatal; 1 Nembutal capsule—fatal.

Application for Licence to Sell Dangerous Drugs by Wholesale: 1.

Licences for Hospitals to Possess Dangerous Drugs: 2.  
**Poisons Schedules Advisory Panel.**—The President reported on a meeting of the Poisons Schedules Advisory Panel held on September 12. Matters dealt with were:

(a) Request from Dental Association for alteration of regulations to permit dentists to prescribe antibiotics other than penicillin—a recommendation in favour was submitted.

(b) Ticarda—request that this preparation be exempted from Dangerous Drugs control was not approved.

(c) Styrsorb—a request for removal of restrictions was considered and action deferred pending further inquiry and report.

(d) Motion sickness remedies—consideration was given to a request from the Pharmaceutical Society of Victoria that motion sickness remedies consisting of antihistaminic drugs be removed from operation of the Sixth Schedule. After hearing a report of investigational work done by Professor F. H. Shaw and the effect of administration of these drugs to groups of research workers it was recommended that it would be contrary to public interest to remove the restrictions.

(e) Second Schedule—a number of recommendations regarding additions to the Second Schedule were considered.

(f) Methylpentynol—it was recommended that no action be taken towards scheduling this drug at the present time.

(g) Sodium Thiosulphate solution for cyanide treatment—a communication from Mr. S. H. Henshall, stating that he had found it impossible to procure ampoules of sterile thiosulphate 10% solution as recommended in the Board's cyanide treatment instructions was considered. After some discussion an offer by Mr. N. C. Manning to undertake investigation of preparation of sterile solution of sodium thiosulphate in the Pharmacy Department of the College of Pharmacy was accepted with thanks.

(h) Streptomycin in veterinary preparations—further representations for relaxation of controls were considered. It was recommended that a survey of the position in other States be undertaken and that for the time being any further action be deferred.

The report was received and adopted.

**Unqualified Supervision.**—A report was received from Inspector Ahern concerning conduct of a pharmacy by an unregistered person during the absence of the registered proprietor. The Board directed that legal proceedings be taken.

**Dangerous Drugs Regulations.**—A report concerning serious breaches of the Regulations was received from the Inspector, and it was decided that a prosecution be undertaken.

**Homeopathic Pharmacopoeia.**—A request that the Board officially recognise the United States Homeopathic Pharmacopoeia and another text book of homeopathic remedies for the purposes of the Proprietary Medicines Act was considered and rejected.

**Correspondence Course, Country Students.**—A letter was received from the Victorian Pharmacy Students' Association, inviting the Board's views on the question as to whether provision might not be made for country students to be given time off for the purpose of correspondence course study, city apprentices being entitled to time off for attendance at lectures in First and Second

BM22-55

years. The matter was considered by the Board, which directed that a reply be sent that the Board was sympathetic and would investigate the position.

**Pharmaceutical Association.**—Memoranda were received from the Pharmaceutical Association of Australia concerning (a) recommended date of operation of the A.P.F., 1955 (1st October, 1955); (b) adoption of names Benegride and Amiphenazole; (c) next meeting Melbourne, May 22-30, 1956.

A letter was received from the Pharmaceutical Society, requesting the Board to nominate two members to a Victorian Conference Committee to be established. Messrs. Callister and Manning were nominated.

**Pharmacy-Science Combined Courses.**—A report on discussions which had taken place with the Dean was submitted by Messrs. Manning and Callister.

The President said that the Universities Commission had requested advice as to the possibility of dovetailing the two courses. The Melbourne office had two applications under consideration and wished to have advice.

It was resolved that the Registrar arrange an interview with the Melbourne branch.

**Financial.**—The Honorary Treasurer submitted the monthly Financial Statement, and accounts totalling £676/10/1 were passed for payment.

The meeting closed at 3.30 p.m.

## PHARMACEUTICAL SOCIETY

### Council Meeting

The Council of the Pharmaceutical Society of Victoria met at 360 Swanston street, Melbourne, on September 7, at 10 a.m.

**Present.**—Mrs. P. A. Crawford, Messrs. Eric Scott, S. J. Baird, A. G. Davis, A. L. Hull, L. Long, F. W. Johnson, V. G. Morison, C. P. A. Taylor, G. H. Williams, and the Secretary.

**Resignation of President.**—The Vice-President, Mr. Eric Scott, read a letter which he had received from the President, Mr. Ivan J. Thompson, submitting his resignation as President. Mr. Thompson stated that his medical advisors had indicated that he must relinquish all official duties, and he was, therefore, compelled to tender his resignation. He did so with regret, but felt that he could not satisfactorily perform the duties of the office in his present state of health.

Members unanimously expressed their deep regret that their President had been compelled to take this step. The resignation was accepted with regret, and, on the motion of Mr. Baird, seconded by Mr. Taylor, it was resolved that a special minute expressing the Council's appreciation of Mr. Thompson's outstanding services to the Council should be recorded. It was resolved also that a letter be sent to Mr. Thompson conveying the good wishes of the members of the Council and hopes for his early restoration to good health. After some discussion on procedure, it was resolved that Council should now elect a new President and Vice-President.

Mr. Eric Scott was elected President for the unexpired portion of Mr. Thompson's term of office, namely until April, 1956, on the motion of Mr. Williams, seconded by Mr. Davis.

Mr. G. H. Williams was elected Vice-President on the motion of Mr. Long, seconded by Mr. Taylor.

Mr. Scott resumed the Chair, and thanked the members for electing him to the position of President.

**Correspondence.**—Formal correspondence was tabled, and letters read included the following:—

From a country member, forwarding a Polish prescription for translation. Translation obtained and forwarded.

To the Pharmaceutical Society of Great Britain, introducing Kodak Scholarship winner, Mr. George Landers.

To the Pharmacy Board of Victoria, suggesting for consideration the removal of motion sickness remedies

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Phone: B 8407.)

SOUTH AUSTRALIA: Churchill Building (First Floor), 61-63 Gawler Place, Adelaide.

(Branch Secretary, O. H. Walter.)

Phone: Central 4466.)

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## VICTORIA—Continued

from prescription control. The Secretary stated the Board had considered the suggestion, and had referred it to the Poisons Schedules Advisory Panel, which would be meeting on September 12.

To the Superintendent of Telephones, supporting the applications of two members.

From Parke, Davis & Co., Sydney, advising that "A Trip to Parke-Davis" for prize winners would take place immediately after the Students' Conference in Sydney next year.

To Sigma Co. Ltd., forwarding list of names and addresses of Fourth Year students to receive presentation copies of the new edition of the A.P.F. The Secretary was instructed to write to Sigma thanking them for this generous gesture.

From Mr. and Mrs. C. Westwood and Mrs. D. C. Tait and family expressing thanks to the Council for messages of sympathy.

From a country member, seeking information regarding labelling of proprietary preparation. Information supplied.

From the University of Melbourne, requesting name of representative from the College of Pharmacy to the Faculty of Medicine for 1956. The name of Dr. Byron Stanton was submitted.

From the Dean of the College, advising that Miss E. M. Witt had presented a gas stove to the College. Resolved that a letter of thanks be forwarded to Miss Witt.

To F. H. Faulding & Co. Ltd., Drug Houses of Australia Ltd., and I.C.I., conveying thanks for making cars available for trip with Interstate visitors to Macedon and Woodend during Section "O" meeting in Melbourne.

From the Victorian Branch of the Guild, forwarding N.H.S. prescription on which was printed the name and address of a pharmaceutical chemist. The prescription had been handed in at a pharmacy other than that of the chemist whose name was printed on the form. The Council directed that a letter be sent to the member concerned, pointing out that, in its opinion, the practice of issuing prescription forms with chemist's name and address printed thereon was undesirable, and should be discontinued.

From the University of Melbourne, advising that Fourth Year Medical Students would commence lectures in practical work in Materia Medica and Pharmacy on November 7, and that the classes would meet on Tuesdays and Thursdays as previously.

**New Members Elected.**—The following new members were balloted for and elected as full members:—

**New Members.**—John M. Crawford, Samuel Crauford Kerr, Dorothy Jean Ritchie

**Transfer from Apprentice Membership:** Peter Reginald Monichon, Bryan Peter Cosgrave.

**Apprentice Member Elected.**—Desmond Barry Carter.

**A.P.F. Management Committee.**—A report was received from Mr. F. H. Burton, who travelled to Sydney to assist in the A.P.F. display at the Medical Congress Exhibit from August 20-27 by arrangement with the N.S.W. Society.

[Mr. Burton's report is published elsewhere in this issue.—Ed.]

Mr. Johnson reported also that approximately 1500 copies of the new edition of the A.P.F. had been delivered to wholesalers and book sellers in Victoria. Further supplies were being awaited from the printers. Mr. Johnson further reported that the A.P.F. Management Committee proposed to resume active publicity, and suggested that money be made available for the purpose. The Hon. Treasurer, Mr. Baird, said that reasonable provision would be made for this work.

The report was received, and it was resolved that the Council's appreciation be conveyed to Mr. Burton for his work and the excellent report submitted.

**Education Committee.**—Mr. Johnson, Chairman of the Education Committee, reported that the Committee met immediately before the Council meeting that morning. Consideration was given to a proposal that First Aid should become a subject of the Pharmaceutical curriculum. The Dean, who was present at the Committee meeting, had reported that this could not be done unless students were required to attend longer at the College. Members of the Committee were unanimous that the proposal was a good one, and recommended to the Council that steps be taken to ascertain how many apprentices and members would voluntarily join such classes if they were established. The Council resolved that a circular be issued on the subject, and that steps be taken to establish suitable courses of instruction for apprentices and members desirous of attending.

**Finance Committee.**—Mr. Baird reported that the Finance Committee met on August 8. The Society's architect was in attendance, and indicated that building costs were increasing, and that the cost of erection of a new College might be greatly advanced if undue delay occurred in making a start. The State Treasurer and Public Works Department were now being pressed for an indication as to the next step to be taken in regard to the commencement of building operations.

The Finance Committee had recommended that the B.P. Dose Book now being printed should not be distributed free to medical practitioners, but that all copies should be sold at a reasonable price which would be determined by the cost of printing. The Committee recommended that an order be placed for 3000 copies.

**Investments.**—The Committee had suggested that surplus moneys in the Reserve Fund and Benevolent Fund be invested in Commonwealth Bonds, and this had been done. The report of the Committee was adopted.

**Apprenticeship Premiums.**—A communication was received from the National Union of Pharmaceutical Students of Australia seeking an expression of opinion on the question of payment of apprenticeship premiums. The Council recorded the opinion that this was a matter outside of its scope. Payment of premiums was not illegal, but the Labour and Industry Act fixed a maximum premium of £100 for pharmaceutical apprentices. Where premiums were paid, suitable clauses appeared in the Indenture of Apprenticeship, which was drawn up by the Pharmacy Board. There was division of opinion on the matter, and the Council indicated that it would not make a statement for or against.

**Combined Pharmacy-Science Scholarships.**—The Secretary reported that two applications were under consideration by the Melbourne Office of the Universities Commission. Inquiry had been made to the Pharmacy Board on the possibility of dovetailing the courses. A small Committee was examining the question, and there were prospects that an arrangement satisfactory to the University and to the College of Pharmacy was possible.

**A.P.F. 1955.**—A communication was received from the Pharmaceutical Association recommending that the date of operation of the A.P.F. 1955 should be as from October 1, 1955. After some discussion as to the implications of this, the recommendation was agreed to.

**Pharmaceutical Association Meeting.**—The Secretary reported that the dates proposed for the next meeting of the Pharmaceutical Association in Melbourne were May 22-30, 1955. As Victoria was the host State, it would be necessary to consider preliminary arrangements at an early date. The Council resolved that a Conference Committee should be established. The members of the Executive were nominated to the Committee, and the Secretary was directed to invite other pharmaceutical organisations to nominate members to a joint Conference Committee.

**Section "O" Meeting in Melbourne.**—The Honorary Treasurer reported that a very successful meeting of

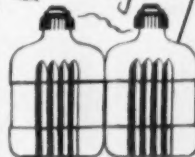
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## VICTORIA—Continued

Section "O" A.N.Z.A.A.S. had been held. Interstate visitors had expressed their pleasure at the arrangements for their reception and entertainment, and organisation had worked smoothly. Particular thanks were due to the Ladies' Committee who looked after the entertainment of lady visitors from Interstate. Forty-seven Interstate visitors—a record number—had attended sessions. Total cost of entertainment of the visitors would not exceed £125.

**Quarterly Meeting.**—It was resolved that an invitation be extended to the Prime Minister, The Hon. R. G. Menzies, to address members at the next Quarterly Meeting to be held in October.

**Presentation.**—Two copies of an early edition of Martindale's Extra Pharmacopoeia, bearing the autograph of the author, Dr. Martindale, were presented to the Library by Dr. Byron L. Stanton. It was resolved that a letter of thanks be forwarded to Dr. Stanton for the gift of these books, which were of special interest, and were greatly valued by the Council.

**Finance.**—The Hon. Treasurer presented the monthly financial statement, and accounts were passed for payment.

The meeting closed at 12.30 p.m.

### THE P.D.L.

### Directors' Meeting

The 375th meeting of the Directors of Pharmaceutical Defence Ltd. was held at 24-26 St. Francis street, Melbourne, on September 12, at 9.45 a.m.

**Present.**—Mr. E. W. Braithwaite (in the Chair), Messrs. I. H. Barnes, W. J. Cornell, N. C. Cossar, E. A. O. Moore, F. N. Plessance, C. C. Wallis, B. L. Warner and the Secretary.

**Panel of Analysts.**—The Chairman said he would take up this matter at the first opportunity with Mr. Manning before communicating with Mr. Scott.

**Correspondence.**—Formal correspondence was tabled and the following were amongst the letters dealt with:

To Mr. W. J. Cornell, forwarding 110 copies of the new leaflet dealing with insurance. The Secretary said some replies had been received to this circular prior to the renewal notices being sent to members generally. Mr. Cornell was thanked for his co-operation in this matter.

From the Pharmaceutical Association of Australia, re (1) A.P.F.; (2) B.P. Commission; (3) Melbourne Conference, 1956.

An extract from "The Taxpayer" of June, 1955, on the subject "Goodwill and Taxation" had been forwarded to all of the Directors.

The Secretary reported the substance of telephone conversations he had had with some members in regard to insurances.

From the South Australian Branch Secretary, requesting fifty copies of the application form for membership. Forms sent.

**Insurance of Prescriptions.**—Mr. Barnes said he had obtained this cover at very reasonable rates through Melbourne Fire Office Ltd.

Mr. Moore said he would be glad to have more information. The Chairman said he would be seeing the Manager of M.F.O. on September 13, and would endeavour to obtain the information then.

**New Members Elected.**—Mr. N. A. Bach, Essendon; Mr. and Mrs. K. R. Brown, Jordanville; Messrs. V. Gandolfo, St. Kilda; J. Napoli, West Melbourne and G. Rogers, Malvern.

**Journal Report.**—Mr. Cossar reported on proceedings at the meetings of the Journal Publishing Company held on August 25.

**Legal Advice.**—In reply to an inquiry from a country member in regard to goodwill and taxation, the solicitors had advised that on the basis that the member had purchased the business ten years ago and received a lease and later on he had purchased the freehold, in their view there would be no tax on the sale of the goodwill.

A member reported a complaint in regard to a quantity of jewellery he purchased recently and which he regarded as unsatisfactory. The solicitor advised that as the total amount of the claim appeared to be less than £10 he doubted whether it would pay the member financially to fight the case. If successful he would be out of pocket to a small extent. If unsuccessful he would probably have to pay costs amounting to twice the amount of the claim.

A country member reported having dispensed a chloral and potassium bromide mixture A.P.F. for a patient who subsequently took an excessive quantity, leaving a note suggesting suicidal tendencies. Medical assistance was called and appropriate antidote treatment carried out. A report was submitted to the police and the patient certified as temporarily insane. The member wished to be advised of his position; all provisions of the regulations had been carried out and the records were available for inspection if necessary. The member was informed that in view of the circumstances, particularly the fact that the person concerned had been certified as temporarily insane, the solicitor was of the opinion that the case was not likely to go to Court. However, if Court proceedings were undertaken, and the member was called as a witness, he was asked to get in touch with the Secretary immediately he received a subpoena so that the matter of his being represented in Court could be arranged.

Mr. Moore said he thought the main facts of this case could well form the basis of a P.D.L. warning message. Although a chemist was allowed to prescribe chloral under a certain percentage, he regarded it as a drug which it was undesirable to give in an own-prescribe.

**Claims.**—The Secretary reported that two claims brought under notice during the month had been settled. Two other claims of longer standing were still the subject of negotiations.

**Financial.**—The Hon. Treasurer presented the monthly financial statement, and accounts totalling £1179/8/6 were passed for payment.

The meeting closed at 12.45 p.m.

## THE GUILD

### Annual Meeting

The Annual Meeting of the Branch was held at the College of Pharmacy, Melbourne, on August 29, at 8 p.m.

**Present.**—Thirty-four members were in attendance.

The Acting President, Mr. N. F. Keith, was in the Chair.

**Apologies.**—The following sent apologies for non-attendance:—Messrs. F. N. Lee, E. Scott, K. Attiwill, M. Super, E. Bradley, F. Bedford and A. Galagher.

**Notice of Meeting.**—On the motion of Mr. Baird, seconded by Mr. Winckle, the notice of meeting was taken as read with the amendment of printer's errors pointed out by the Secretary.

**The minutes** of the Annual Meeting held on August 31, 1954, were confirmed on the motion of Mr. Iliffe, seconded by Mr. Langtry.

**Acting President's Report.**—The Chairman presented this report, and pointed out that the name S. Hull, shown as a member of the Pricing Committee, should read A. Hull. He added to his report a letter from the President, Mr. F. N. Lee, who is abroad, in which it is recommended that the wholesale houses participating in the Combined Price List be written to and thanked for their part in this project.

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## VICTORIA—Continued

Mr. Keith moved, and Mr. Crowley seconded, that the report, together with the statement of accounts and balance-sheet, be received.

This motion was carried, and opportunity given for discussion.

There being no discussion on the report, it was moved by Mr. Cocking, Mr. Lee seconding the motion, that the report be adopted. This was carried.

**Returning Officer's Report.**—Mr. J. I. Richards, Returning Officer, reported that the result of the elections held to decide the names of members to fill the positions of Delegates and Substitute Delegates to the State Branch Committee from even numbered districts, whose members retired in accordance with the Constitution and Rules. The names given are as follows:—

District No.	Delegate	Sub. Delegate
2a	L. Gough	H. Spigelman
2b	A. E. Moore	P. Genery
4	A. O. C. Blake	A. N. Dean
	J. W. D. Crowley	D. C. Wood
6	J. Garvin	J. Hussey
8	W. L. Hilyard	—
10	W. A. Iliffe	J. K. Gosstray
	F. H. Bedford	E. R. Clark
12	C. I. Molloy	V. F. Gemmola
14	No nominations received.	
16	S. G. Robson	H. W. Shilton
18	L. A. Hamon	A. Rigg
20	N. F. Keith	T. Payne

**Auditor.**—Mr. R. H. Morrison was re-elected Auditor for the ensuing year.

**Remit from Mr. S. Hull.**—It was moved by Mr. Hull and seconded by Mr. Dorman, that the Federal Council be asked to initiate a complete investigation of the operation of the Commonwealth Serum Laboratories. Mr. Hull gave figures and outlined his reasons for the proposed inquiry.

Regarding one point, Mr. Richards stated that he was not in favour of the motion, as the money margin now received by chemists was higher than would be the case if C.S.L. prices were reduced.

The motion was lost on a show of hands.

A second remit on Communist China and opium exports was presented in the form of a motion by Mr. Hull, and was seconded by Mr. Moore. This motion was also lost.

**Remit from Mr. M. Super.**—A remit from Mr. Super that the State Branch Committee be directed to set up a committee of inquiry to investigate relations between the pharmaceutical and veterinary professions was read by the Chairman.

Mr. Hull moved a motion to this effect, and this was seconded by Mr. Winckle.

Some discussion followed. Mr. Callister asked for specific information in support of the statement regarding the relations between the pharmaceutical and veterinary professions having worsened, and Mr. Braithwaite expressed the opinion that there had been no worsening of relations.

Following discussion, the motion was lost.

**Dispensing Fees Revision.**—Mr. Keith addressed the meeting on this subject. He outlined the inadequacy of the current dispensing fees, stating that they returned only approximately 15/- per hour. It was stated that, based on reports and investigations here and overseas of the accepted practice in industry, and applying the current chemists award rate, the return should be 24/3 per hour. This was compared with the rates at present charged by tradesmen, and it was advised that a recommendation will be made to the State Branch Committee on the whole scale of dispensing fees, of which instances were given.

Mr. Hull suggested that there should be some distinction between dispensing fees and recording fees, and Mr. Callister and Mr. Manning gave their opinions on

the time taken for dispensing Eye Drops. Mr. Keith added that the proposed new scale of fees, being based on the award rate of wages, could readily be adjusted upon changes in the award.

**Sales Tax on Surgical Sundries.**—Mr. Dorman raised this matter, and moved that the attention of Federal Executive be drawn to requests made for steps to be taken to have the Tax withdrawn from these goods. This motion was seconded by Mr. Hull.

Mr. Crowley moved an amendment that a new list be prepared of items still subject to Sales Tax, and this list be taken to Ministerial level. This amendment was seconded by Mr. McEwan.

Mr. Evans, Federal Secretary, reported that an up-to-date list had been presented.

The mover and seconder of the amendment agreed that if the reply to the Federal Office is not satisfactory, the matter be taken up again, and at Ministerial level. The motion as so amended was carried.

**Dispensing Bottles.**—Mr. Locke moved that the State Branch Committee take up the matter of undersize bottles being supplied for medicine, and that an approach be made to the Government to allow the importation of bottles if Australian Glass Manufacturers Pty. Ltd. cannot produce bottles of correct size. This motion was seconded by Mr. Moore and carried.

**Sales Tax on Bottles.**—After Mr. Dorman had spoken advocating the complete withdrawal of Sales Tax from all medicine bottles, Mr. Baird moved that the State Branch Committee take the matter up. This motion was seconded by Mr. Cocking and carried.

**Committee and Executive.**—Mr. Richards outlined the enormous amount of work done voluntarily and without monetary reward by members of the State Branch Committee and the various sub-committees, the President and other members of the Executive, and suggested that Districts be informed at their meetings of this fact. He congratulated the Acting President on the manner in which he had conducted Guild affairs in the absence of the President, and this was supported by the meeting with acclamation.

The meeting closed at 10.30 p.m., after which supper was served.

## SEPTEMBER MEETING OF S.B.C.

The State Branch Committee of the Victorian Branch of the Guild met at 18-22 St. Francis street, Melbourne, on September 6, at 8 p.m.

**Present.**—Mr. N. F. Keith (Acting President and Chairman) Messrs. J. W. D. Crowley, E. Scott, J. F. Oaten, S. M. Adams, W. R. Iliffe, A. O. C. Blake, J. I. Richards, F. L. Flint, W. J. Langtry, A. E. Moore, J. K. Gosstray, F. J. Gregory, J. J. Cocking, C. I. Molloy, T. K. Sarah, J. Garvin, I. R. Silverwood, V. S. Lucas, and the Secretary and Assistant Secretary.

Present by invitation: Messrs. K. G. Attiwill and T. B. Evans.

**Appointment to Executive.**—Mr. Iliffe was co-opted to the Executive to fill the vacancy caused by Mr. Lee's absence.

**Correspondence.**—Request from Mr. K. L. C. Davies, of Maffra, for three months' leave of absence from State Branch Committee meetings was granted.

A letter from Mr. D. F. Gore, of Terang, in which he pointed out the anomaly in the cost of railway freight on medicines and other perishable goods was directed to be referred to the Minister of Transport.

Discussion took place regarding a letter from H.B.A. (forwarded under cover of a letter from the Pharmaceutical Society), in reply to Guild suggestions submitted recently. It was decided not to press the request for receipts to be printed in triplicate. It was resolved that the Executive seek a conference with H.B.A. to discuss (1) the question of direct representation by the Guild, (2) the request that agents be credited with any moneys paid at Head Office by clients sent in by them, and (3) regarding the matter of transfers.

*A new release . . .*

## D.H.A. 245

(brand of 2, 4-diamino-5-phenylthiazole hydrobromide)

This substance has been found to be effective in counteracting the respiratory depressant and narcotic action of heavy dosage of morphine. It has little effect on the analgesic action.

When used with morphine it permits the administration of larger doses at longer intervals and thus facilitates the administration of this drug in conditions where heavy dosage is usually required.

The combinations listed below should be used only for otherwise intractable pain.

Full instructions for use are obtainable in a pamphlet available from D.H.A. Houses.

**AVAILABILITY** D.H.A. 245 Oral: Tablets of 20 mg. in tubes of 25.

D.H.A. 245 20 mg.: Powder in vial.

D.H.A. 245 20 mg.: Powder with ampoule of double distilled pyrogen-free water.

**COMBINATION PACK** D.H.A. 245 10 mg. c amp. of 1/6 gr. morphine sulphate.

D.H.A. 245 10 mg. c amp. of 1/4 gr. morphine sulphate.

Distributed throughout Australia by ALL D.H.A. HOUSES

# HOSPITAL PHARMACISTS

More and more progressive hospitals are changing over to ampoules for all their Dangerous Drug injections, in place of multidose vials, or hypodermic tablets.

**Advantages are:—**

1. Accuracy of dosage.
2. No risk of contamination or cross infection.
3. Ease of record keeping.
4. Greater protection against illicit use.
5. Majority of lines available under P.B.A.

When next ordering make sure you obtain your narcotic injections in "HERMETTE" brand ampoules from DAVID G. BULL LABORATORY PTY. LTD.

Lines include most strengths of:—

Morphine Sulphate.

Pethidine.

Morphine and Hyoscine. Papaveretum.

Morphine and Atropine.

M.S.A.

Morphine Tartrate to 2.5 grains per dose.

#### PRICE LIST ON APPLICATION

Messrs. W. M. Clarry Pty. Ltd.,  
329 Adelaide Street,  
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Messrs. L. Gunzburg & Co.,  
19 Pier Street,  
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**DAVID G. BULL LABORATORY PTY. LTD.**  
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## VICTORIA—Continued

**State By-Laws.**—It was resolved that the question of any alterations to State by-laws be attended to by the Executive.

A circular from a member advertising P.A.T.A. lines at cut prices was sighted. It was decided that the matter be referred to P.A.T.A. for action.

**Executive Report.**—The Executive report given by the Acting President was adopted.

**Federal Report.**—The Federal President's report was thrown open for discussion, and Mr. Gregory and Mr. Flint asked certain questions regarding "Family Circle." Mr. Gregory was advised by Mr. Scott that Federal Council approved the formation of "Family Circle," that there is a contract between the Federal Guild and the publishers, and that there is no financial commitment by the Guild. Mr. Gregory proposed a meeting in his area to discuss all aspects of the publication of "Family Circle." Mr. Flint said his District was concerned about free distribution, and Mr. Scott said that after the first issue action will be taken against anyone who does not charge for the magazine.

**Trade and Commerce Report.**—Mr. Iliffe reported the value of the recent Federal Trade and Commerce Conference, and expressed the hope that it would be repeated annually. The decisions reached at the Conference were subject to approval by the Federal Council.

**Pricing Report.**—Mr. Keith reported on the recent Pricing Officers' Conference, and said certain decisions had been made and would be recommended to Federal Council for ratification.

Mr. Iliffe presented the Pricing Committee's report, and moved its adoption. This motion was seconded by Mr. Adams and carried.

It was resolved that a note be included on the weekly alteration and addition sheet that the Guild has not approved the current "two-for-one" offer now being made to chemists.

**New Members Elected.**—Messrs. D. C. Lawrence, Melbourne; S. C. Kerr, St. Albans; G. Rogers, Syndal; J. Napoli, West Melbourne; L. E. Knight, Ararat; W. Swedosh, Moorabbin; Mrs. J. Say, Benalla; Mrs. E. Rabinov, Moorabbin; and Messrs. P. Bartold and R. L. Lowell, Warburton.

**Re-entered.**—Mr. A. B. Simpson, Box Hill.

**Election of Committees.**—The following nominations were made for the Committees set out below. As in every case there was only one nomination for each position vacant, those nominated were elected automatically.

**Pricing Committee:** Mr. N. F. Keith as Chairman, to form own Committee.

**Wages Board Representatives:** Messrs. E. Beacham, C. P. A. Taylor and J. W. D. Crowley.

**Wages Board Committee:** Members of Executive, Wages Board Representatives, Messrs. N. Manning and D. W. McEwen.

**Trade and Commerce Committee:** Mr. W. R. Iliffe as Chairman, to form own Committee.

**Hospital Committee:** Messrs. S. M. Adams and F. N. Lee.

**Representatives on Medico Pharmaceutical Liaison Committee:** Messrs. S. M. Adams and F. Lee.

**Representatives on Joint Guild Society Committee:** Messrs. F. N. Lee, W. J. Langtry and W. R. Iliffe.

**Representatives on Victorian Pharmaceutical Liaison Committee:** Messrs. F. N. Lee and N. F. Keith.

**Lodge Committee:** Mr. J. K. Gosstray as Chairman, to form own Committee.

**Poisons Regulation Committee:** Mr. F. H. Bedford as Chairman, to form own Committee.

**Wages Board Committee.**—It was decided that this Committee should meet shortly, and that it draw up a log for the revision of No. 6 Shops Act Award to include new proposals, and submit it to the November meeting of the State Branch Committee.

**Hospital Committee.**—It was decided that the Pharmaceutical Society be notified of the appointment of the members of this Committee.

**Co-option to S.B.C.**—On the motion of Mr. Iliffe, seconded by Mr. Adams, Mr. Gosstray was co-opted to the State Branch Committee.

**Election of Secretary.**—Mr. W. F. Glover was elected Secretary for the ensuing year, on the motion of Mr. Iliffe, seconded by Mr. Scott.

**Hon. Member.**—On the motion of Mr. Scott, seconded by Mr. Iliffe, Mr. A. K. Lloyd was elected an honorary member of the Guild for the ensuing year.

**Financial.**—The Treasurer's report was given by Mr. Crowley, who detailed the Statement of Receipts and Expenditure for the months of July and August. Accounts totalling £2156/2/9 were passed for payment.

**Lodge Committee Report.**—Mr. Gosstray, Chairman of the Lodge Committee, requested that members be asked, per medium of "Gileal News," for information as to where pools are operating.

**District Reports:**

**District No. 5.**

**Age of Juveniles.**—It was decided, on the motion of Mr. Oaten, seconded by Mr. Lucas, that the Medico Pharmaceutical Liaison Committee take action to ensure that the age of juveniles is stated on scripts.

**Patients' Address on Scripts.**—On the motion of Mr. Oaten, seconded by Mr. Lucas, it was agreed that the Medico Pharmaceutical Liaison Committee take action regarding the failure of some doctors to write the address of the patient on scripts for S.D. items.

**Wholesale Price Given to Consumer by Warehouse.**—It was reported that a member of the public, on seeking the price of an item from a warehouse, had been quoted the wholesale price, and he expected to pay that price to the chemist. Accordingly it was agreed that the warehouses be asked to check the bona-fides of inquiries before divulging pricing information.

**District No. 12.**

**Pin Quick.**—As the result of a protest that this line, whilst being virtually unobtainable from the wholesale druggists, was stocked in abundance by the chain stores and emporiums, it was decided to write to Hudnuds regarding the inequitable distribution.

**Pensioner Scripts.**—Regarding the latest circular from the Health Department, stating the prices of packed lines, it was resolved that Victorian Delegates take up with Federal Council the question of a dispensing fee being included in the prices of these items.

**District No. 14.**

**Olympic Games.**—It was decided to refer to Districts for report to the next meeting a suggestion that the Olympic Games Committee be approached with an offer that chemists will offer hospitality to visiting overseas chemists, regardless of nationality, for the period of the Games.

**District No. 19.**

**Breakdown Packs of Ethicals.**—It was decided to refer to the Pricing Committee the suggestion that a price schedule for commonly used ethicals in breakdown packs be prepared.

**Report on Deputation to Minister of Labour.**—The Secretary reported on the recent deputation to the Minister of Labour in support of the move to have trading hours not extended. He stated that Cabinet appeared to be in favour of extending the present hours.

**Railway Parcels.**—It was decided that the Guild would again take up with the Railways Department the late arrival of parcels by passenger train, suggesting that special rates for urgent parcels be considered.

**Congratulations to Members.**—It was decided that letters of congratulations be forwarded to Mr. W. R. Lumley, of Chelsea, Mr. H. M. Samuel, of Parkdale, on their election to the office of Mayor, and to Mr. R. L. Dear on his election to the Camberwell City Council.

The meeting closed at 12.10 a.m.

# QUEENSLAND

## PERSONAL and GENERAL

## State News

Members desiring publication of personal items of interest are invited to write or telephone details to the Journal Correspondent in Queensland, Miss D. Brighthouse, phone B 8407.

**Mr. G. W. Clarke**, Chemist, of Maryfield, is establishing a branch at 176 Stanley road, Carina.

**Mr. J. D. Moffat** has opened a pharmacy at Biloela, making the second chemist in the town.

**Messrs. R. P. Tobiano and B. T. Davidson**, of Cairns, are opening a pharmacy at Edmonton, in the Cairns area.

**Miss Rina Whitehead** left by plane during the month for Suva, Fiji, where she is to manage the pharmacy in Burns Philp department store.

**Mr. C. A. Nichol**, who had to close his pharmacy at 9 Adelaide street, has commenced business again at 189 George street, City.

**Miss Elizabeth-Anne Tomlinson** has purchased the pharmacy of Mrs. F. Ledingham, at 76 Racecourse road, Ascot.

**Mr. M. Z. Tuch** has closed his pharmacy at Logan road, Woolloongabba, and is having a modern pharmacy erected at the term terminus, Mt. Gravatt.

An interstate visitor during the month was **Mr. W. D. Nicholas**, of Brighton, Victoria, who had been enjoying some weeks holidaying in the northern parts of the State.

A northerner enjoying a holiday in Brisbane during the month was **Mr. J. A. Louis**. During his visit, Mr. Louis attended the September meeting of the Guild Committee. **Miss Ebnetter** acted as locum for Mr. Louis during his absence.

### OFFICE-BEARERS 1955-56

Congratulations to **Mr. W. A. Lenehan** on his re-election as President of the Guild for the ensuing year. Good wishes are extended to Mr. Lenehan as he enters his sixth year of office.

**Mr. C. A. Nichol** has been reappointed Vice-President and **Mr. C. W. Noble**, Honorary Treasurer.

**Mr. W. E. Martin**, of Southport, was re-elected Queensland delegate to the Guild Federal Council.

**Other Members of the Committee are:** Messrs. A. Bell, A. B. Chater, J. J. Delahunty, L. Hall, L. W. Huxham, G. Nolan, F. H. Phillips and R. M. Ward.

### VISITS TO GUILD DISTRICTS

Following the annual meeting of the Guild in Brisbane on August 30, at which the Guild Federal Merchandising Manager, Mr. R. G. Ross, was Guest Speaker, in company with the State President, Mr. Lenehan, and the Chairman of the Trade and Commerce Committee, Mr. Delahunty, Mr. Ross set off from Brisbane on September 1 for a visit to a number of Guild Zones in this State.

The first stop was made at Mackay, where the visitors met the local members and Mr. N. E. Clarke, of Sarina, on the evening of September 1.

The next centre visited was Cairns, where a district meeting was held on September 4. This was a very good meeting, many members travelling some miles distance to be present.

Townsville was visited on September 5, and here again several members travelled a good distance to be in attendance.

The meeting in Rockhampton was held on September 7 and the following evening the visitors were in Mary-

borough, where it was pleasing to meet members from Childers, Pinalba, Torquay, all the Guild members from Gympie, in addition to 100 per cent. attendance from Maryborough members. It was certainly inspiring to the visitors to see 100 per cent. attendance in this centre.

Returning to Brisbane, the final meeting of the visit took place at Toowoomba on Sunday, September 11, when five other members of the State Branch Committee joined the visitors and made the trip to that city.

The Guild delegation estimates that approximately a quarter of the members of this Branch were contacted during their visits.

As it is some years since Mr. Ross visited Toowoomba and the other parts of the State, it is felt that our members having again met Mr. Ross and having heard his fascinating story of the various developments of the Merchandising Section, will support its future activities with even greater enthusiasm.

### CHEMISTS' BOWLING NOTES

On September 11 an all-day pairs competition was enjoyed by those who played at the Booroodabin Club. Twenty-four participated and the results were as follows—

#### Leads—won by—

Dr. Morton	6 points + 19
Dr. Pye	6 " + 18
E. W. Vance	6 " + 3
R. Colledge	6 " + 1

#### Skips won by—

T. Clark	8 points + 17
A. Winterflood	8 " + 13
R. M. Ward	7 " + 19
P. M. Coffey	6 " + 10

Trophies presented by Queensland Druggists Ltd. were won by the two leading "Leads" and "Skips."

Arrangements are well in hand for the visit to Sydney during the first week of October for matches against the N.S.W. Chemist Bowlers. There will be five rinks from Queensland.

## PHARMACEUTICAL SOCIETY

## Council Meeting

The Council of the Pharmaceutical Society of Queensland met at Drysdale's Chambers, Wickham street, Brisbane, on August 11, at 8 p.m.

**Attendance.**—Mr. R. V. S. Martin (President); Mrs. Carlson, Miss Chalmers; Messrs. H. G. E. Sneyd, E. W. Vance, J. E. McCaskie, L. A. Stevens, G. R. Wells, J. M. McKenzie and the Secretary.

**Report of Dispensing Tolerances Sub-Committee.** The President said every member of the Council had had a copy of the sub-committee's report for perusal. After discussion it was agreed that this report be received.

**Correspondence.**—To Mr. J. R. B. Gillies, expressing sympathy on the death of his father. Acknowledged with thanks.

To Mrs. Schneider, expressing the Council's sympathy on the passing of Mr. Schneider.

Letters to successful students in the June final examination were tabled for the perusal of members of the Council. Copy of letter sent to Associate Members of the Council who were successful was also tabled.

A card of appreciation for message of sympathy was received from Mr. W. J. Rawlinson, following the death of his father, the late Mr. W. B. Rawlinson.

From Pharmaceutical Association, advising that 1,000 copies of the A.P.F. were being despatched from Mel-



## QUEENSLAND—Continued

bourne by sea on August 15. The Secretary reported that to date orders had been received for over 400 A.P.Fs.

Members said they considered it fitting to assist the students through the Students' Society with copies of the A.P.F. After discussion, it was agreed that, if orders for the A.P.F. were received in minimum quantities of a dozen from the Students' Society, they be supplied at 15/- per copy, less 10 per cent. It was resolved that the Students' Society be advised accordingly.

From Australasian Pharmaceutical Publishing Company Ltd., forwarding copy of annual report. Mr. Sneyd said he had arranged for a proxy vote at the annual meeting and he believed that Mr. Greig had done likewise.

From the Registrar, Pharmacy Board, forwarding results of the June Final Examination.

From Parke, Davis & Co. Ltd., advising that its award for 1956 will commence on January 18.

Mr. Martin asked the Secretary if she would write to the Pharmacy Board advising the date of commencement of this prize, and inquiring if it would be possible to advise the winners of this award before the Christmas holidays, so that the necessary arrangements could be made.

**New Members Elected.**—Messrs. C. W. Noble, Auchenflower; C. J. Massie, Chermiside; V. J. Kelly, Dalby; R. Davis, Coorparoo, and I. P. Brunasco.

**Associate Members Elected.**—Miss Mary Loft, Mr. P. A. Stevenson, and Miss Elizabeth Smallhorn.

**"A.J.P."**—Mr. Wells reported on items of interest in the current edition of the "Australasian Journal of Pharmacy."

**British Pharmaceutical Journal.**—Mr. Stevens reported on recent issues.

**"Pharmacy International."**—Mr. McKenzie reported.

**Pharmacy Board.**—The President reported all the chemists in Redcliffe had joined together and had formed the Redcliffe After-Hours Dispensary Service.

**Pharmacy Ball.**—Mr. Martin reported that the proceeds from the ball this year were very satisfactory.

**Consideration of New Books for Library.**—Members of the Library Committee were requested to give some thought and consideration to new publications for the Library.

**Picnic.**—After Mr. Vance had stated that Fernvale would not be suitable as a spot for the forthcoming picnic, it was agreed that the picnic be held on September 25, at Mt. Crosby Pumping Station, and that the chemist golfers be informed so that there would be no clash of dates.

Necessary arrangements for the picnic to be held at Mt. Crosby were left in Mr. Vance's hands.

The meeting closed at 9.45 p.m.

### THE GUILD

### S.B.C. Meeting

The State Branch Committee of the Queensland Branch of the Guild met at Drysdale's Chambers, Brisbane, on September 1, at 8 p.m.

**Attendance.**—Messrs. C. A. Nichol (Vice-President), W. E. Martin, F. H. Phillips, A. Bell, L. W. Huxham, L. Hall, C. W. Noble, and the State Secretary.

**Report on Nominations for Office-Bearers.**—The Secretary reported that the following nominations had been received for office-bearers for the ensuing year—

**President:** Mr. W. A. Lenehan.

**Vice-President:** Mr. C. A. Nichol.

**Honorary Treasurer:** Mr. C. W. Noble.

The precise number of nominations being received for the vacancies, Mr. Bell moved that the abovenamed be declared elected. Second by Mr. Phillips. Carried.

On behalf of the other office-bearers and himself, the Vice-President, Mr. Nichol, thanked members of Committee for their confidence in re-electing them to office. They trusted that they would have a successful and interesting year of office.

**Second Delegate.**—Mr. Martin moved that the second delegate be the President or the Vice-President, whichever is available at the time, to attend Federal Council Meetings. Seconded by Mr. Huxham. Carried.

**Appointment of Sub-Committees.**—Consideration was given to the appointment of sub-committees for the ensuing year. It was suggested that some thought be given to the appointment of an Arbitration and Taxation Sub-Committee, bearing in mind that there have been two applications in the past year from the Chemists' Assistants for increased wages.

It was agreed that the appointment of sub-committees be left in the hands of the President, and, if possible, submitted to next month's meeting.

**Pricing Officers' Conference.**—Mr. Nichol reported that Mr. Chater regretted he could not be present this evening as he had had to go home with influenza. However, he had asked that the meeting be informed that all recommendations emanating from the conference had to go before the Federal Council for implementation if considered necessary.

**Trade and Commerce Conference.**—In the absence of Mr. Delahunty, Mr. Hall reported on the successful Trade and Commerce Conference held in Melbourne at the end of August, when Mr. Delahunty and he represented Queensland. All States were represented at the conference, and Mr. Ray Feller, of N.S.W., who proposed the conference, acted as Chairman.

Mr. Hall said a full report of the conference would be to hand in time for next month's meeting. In the meantime he could tell the Committee the three main points emanating from the conference were—

1. An appreciation of other States' problems.
2. Consideration of the Neilsen Survey.
3. Better trading conditions.

The report was received.

**Over-the-Counter List.**—Mr. Huxham said he was still awaiting prices from the wholesalers. As soon as these prices were procurable he would be able to proceed with the compilation of the list.

Mr. Martin said he felt it would be a good idea if the Zones were contacted and asked if there were any particular household lines in their areas packed by manufacturers for chemists, which should be included in the new list. As the list was being reprinted, now would be the time to include such additional packs.

The Secretary was requested to communicate with the Zones as suggested.

**"Dexsal" Month.**—Mr. Nichol reported that during the month Mr. Delahunty, Mr. Hall and he had had a conference with Mr. Hall, Mr. G. Nichols and Mr. Lee Stitt, of D.H.A., with regard to the "Dexsal" month to be again held in February next. Mr. Nichol said the D.H.A. officers were very keen to have another "Dexsal" month and to accept various suggestions submitted by the Guild. This year's effort was very successful and with the experience of the past effort, it was hoped that the 1956 "Dexsal" month would be even better. The price would be incorporated in their "Dexsal" advertisements. There would be good coverage by newspaper and radio. Steps were also being taken to see that D.H.A. branches throughout the State have advance stocks ready to meet the demand. Advertising would commence in October, with more concentrated advertising in February.

**Arrival of Guest.**—At this stage Mr. J. A. Louis, of Gordonvale, visited the meeting. Mr. Nichol said on

*For Epileptic Control*

# PROMINAL

TRADE MARK

## COMPOUND

Synergistic  
combination of PROMINAL  
(1½ grains) and  
diphenylhydantoin (1 grain)

PROMINAL COMPOUND is effective in all forms  
of epilepsy . . . grand mal, petit mal as well as  
variants such as psychomotor seizures.

Anticonvulsant and sedative

More effective than either  
antiepileptic alone

Well tolerated

Relatively tasteless

Little or no hypnotic action

**DOSAGE:** Adults: 1 or 2 tablets, 3 times daily.  
Children over 6 years of age 2 or 3 tablets daily.  
Children under 6: ½ tablet once or twice daily. As  
with other antiepileptic agents, treatment should  
be started with a small dose and gradually in-  
creased until the optimum dosage is determined.  
Likewise, if a patient has been taking some other  
anticonvulsant drug, it is advisable to taper off as  
the doses of Prominal Compound are increased, to  
guard against temporarily marked recurrence of  
attacks, seen at times when any treatment for  
epilepsy is changed abruptly. When the dose of  
Prominal Compound is to be lowered to main-  
tenance level or to be discontinued, the amount  
should be reduced gradually.

SCORED TABLETS (Prominal 1½ grains  
diphenylhydantoin 1 grain)  
In bottles of 100 and 1000



**BAYER PHARMA PTY. LTD.**

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Distributors: Salmond & Spraggon (Aust.) Pty. Ltd., Sydney : Melbourne : Brisbane : Adelaide : Perth.

6755

# ENERZADE

## the new glucose drink

Energade, the new health drink that replaces lost energy, is now accepted as a family favourite in the Australian home. Specially recommended for exhaustion, acidosis, nausea, sickness, poor appetite and shock.

As from October 1, 1955, Energade, in the 14-oz. bottle, will retail at 6/6. The price to chemists, 52/- a dozen.



### ENERZADE IS A CHEMISTS ONLY LINE

Follow up the big Energade advertising campaign--prepare to meet the big demand. Place your order now through your usual wholesaler or direct from Energade Pty. Ltd., Wingello House, Angel Place, Sydney.

*Remember, Energade is recommended by doctors, nurses, hospitals, nursing homes and schools.*

## QUEENSLAND—Continued

behalf of the President and the Committee he had pleasure in extending a welcome to Mr. Louis. It was always good to meet country members and they trusted he would find the evening most interesting and enjoyable.

In reply Mr. Louis said how pleased he was to be present. He assured the Committee that the northerners had the utmost confidence in the Committee and they looked to the members for guidance. He felt certain he would have an interesting evening.

**New Members Elected.**—Albion Pharmacy (Proprietors, Messrs. L. H. Benjamin, B. M. Benjamin, I. J. Lister and B. Lister), Albion; Miss Barbara Woodgate, Dutton Park; Mr. J. B. Beatts, Brisbane; Mr. A. J. Shaw, Cairns, and Mr. J. D. Moffatt, Biloela.

**Correspondence.**—To Mrs. Derrick, expressing the sympathy of the committee owing to the death of Mr. Derrick.

Federal Secretary (1), forwarding remits for inclusion on the agenda for the Federal Council Meeting; (2) seeking the solicitor's opinion regarding State By-laws.

From Pharmaceutical Society of Queensland, inquiring if the Guild knows of any insurance scheme which can be taken out by chemists holding payments for Medical Benefits. Members pointed out that there is no greater risk with Medical Benefits money than with one's own takings, and the money can be banked daily. However, it was felt that the inquiry could be directed to the Medical Benefits Fund and the Secretary was requested to write, inquiring what type of insurance can be taken out with reference to protection of the holding of medical benefit money.

**Federal Delegate's Report.**—Mr. Martin tabled for the information of members copy of the Federal President's

reply to the N.S.W. Branch concerning the "Kleenex" matter. A copy of the letter received from the Minister for Health, Sir Earle Page, with reference to the suggested amendment to the National Health Act was also tabled. A copy of the Victorian Guild's representation to the Premier of Victoria with regard to the "pegging" of Friendly Societies' Dispensaries in Victoria was forwarded for information. For the advice of members, Mr. Martin also tabled statement of income and expenditure for the quarter ended June 30, 1955.

**Pharmacy Board.**—Mr. Nichol reported on items engaging the attention of the Board at the August meeting.

**Appreciation to Mr. R. G. Ross.**—Mr. Noble said he would like recorded in the minutes appreciation of Mr. Ross' address at the annual meeting. His attendance at the meeting was greatly appreciated and he felt certain that all present listened with interest and appreciation to what he had to say.

The Committee endorsed the Chairman's remarks.

**Shop Assistants' Award.**—Mr. Noble reported that the Queensland Employers' Federation advised that the Retailers' Association had discussed with the Shop Assistants' Union the claim for increased wages. The retailers had done this on their own initiative, without consulting any of the other employers. The Queensland Employers' Federation now recommended that all respondents should file an objecting answer and should also communicate with the President of the Retailers' Association, objecting to the action that organisation had taken. Mr. Noble said he felt that this organisation should accede to the request of the Employers' Federation. Mr. Noble moved that a letter be written to the Retailers' Association and that the Queensland Employers' Federation should be asked to draw up a reply to the Court on behalf of the Guild. Seconded by Mr. Martin. Carried.

The meeting closed at 10.45 p.m.

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# SOUTH AUSTRALIA

## PERSONAL and GENERAL

## State News

Members desiring publication of personal items of interest are invited to write or telephone details to the Journal Correspondent in S.A., Mr. E. F. Lipsham.

**Mr. F. M. I. Moore**, of Mile End, has returned from his tour of the Pacific Islands.

**Mr. B. Kildea** opened his pharmacy in Kingscote, Kangaroo Island in the middle of September.

**Mrs. F. Hayter** spent a few weeks in August assisting Mr. R. Tower, of Tranmere.

**Mr. H. Cheek** has purchased the branch pharmacy of Mr. N. Dundon on Torrens road, Croydon.

**Mr. J. R. Mitchels** relieved Mr. B. Scrivener of Grist's Pharmacy, Draper, during the early part of September.

**Mr. T. Lee** is now recorded as manager for Mr. H. Flaherty, of Plymton.

**Mr. R. Crago**, of Warradale Park, is opening a second pharmacy in the area of Warradale South.

The months of August and September saw **Mr. M. Palk** in charge of the pharmacies conducted by Mr. G. Smylie at Hampstead and Mr. B. Statton in Broadview.

During August and early September **Mr. R. Phillips** spent a few days each with Mr. R. Gryst, of Kent Town, and Mr. R. Martin, of Bowden.

During the proprietor's absence **Mr. D. Warren** was in charge of the pharmacy conducted by Mr. E. Hogben, of Woodville.

**Mr. G. Valente** resigned his position with Messrs. Stempel & Jolly to manage the Karraita Park pharmacy of Mr. E. C. Sauer.

**Mr. P. K. Porter**, of Goodwood, has taken Mr. I. Haddy into partnership; they will conduct the pharmacy under the business name of Porter and Haddy.

**Mr. P. Roberts** has closed his original pharmacy in Parkholme to concentrate on his new one in Brighton South.

**Messrs. P. Gryst and M. Callaghan** have entered into a partnership agreement to conduct the former old pharmacy in Salisbury and a new pharmacy opened in North Salisbury.

**Mr. R. L. Burlinson** has been acting as relieving manager for Mr. H. Young of Angaston, Mr. R. Martin of Strathalbyn, Mr. S. Head of Kadina and Mr. R. Gartrell of Moonta.

**Mr. D. Farley** relieved Mr. R. Gwynne, of Lockleys, during the latter part of August and the early part of September. He also acted for Mr. G. Bartold, of Hectorville, in the subsequent month.

**Mr. P. Maxwell** spent a few days at Webber's Pharmacy, King William street south, before going to Broken Hill under engagement by the executors of the estate of the late Mr. B. Harvey.

**Mr. S. Mudie** assisted at the pharmacy of Mr. H. E. Martin, Rosewater, during the past month. During September he acted as locum for Mr. H. Anderson, of Kings Park.

**Mr. T. Hemmings** has been in charge of F.S.M.A. branch at Beulah Park, but is now managing for Mr. K. Upert, at Kensington, so that the latter could open his new pharmacy in Rosslyn Park late in August.

**Mr. E. Hession** has returned from his trip to Queensland, and is now in charge of F.S.M.A. of Hindmarsh. Similarly **Mr. D. Manhire** has returned from relieving Mr. D. Humble at the Port Pirie branch and is now managing at Torrensvile.

**Mr. K. D. Johnson** extended his stay in Melbourne beyond the conclusion of meetings of Section "O" in August last to undertake discussions in connection with

his position as assistant manager of the Torrens side works of F. H. Faulding & Co. Ltd.

The President of the Pharmaceutical Society, **Mr. A. A. Russell**, of Hyde Park, secured the services of Mr. J. Purches as relieving manager during his visit to Melbourne in the middle of August, to attend Section "O" of the Australian and New Zealand Association for the Advancement of Science.

During August and early September, **Mr. R. Brice** assisted Mr. Walter C. Cotterell, president of the S.A. State Branch of the Guild, for his recent trip to Melbourne for Section "O," and also Mr. J. Rettallick, of Unley, and Mr. G. Murrie, of Anzac Highway, Glenelg.

**Mr. R. Branson** sold his pharmacy in Corrigin, W.A., and returned to Adelaide late in August. He embarked on the "Ixion" with his family in the middle of September to go to England via the Red Sea, and will stay in the Homeland for a number of years.

**Mr. W. Caught** filled in a few days early in September in the pharmacy of the late Mr. B. Webber, Adelaide, before Mr. R. Phillips took over as manager after relinquishing his position at Ennor's pharmacy, Charles street, Adelaide.

**Miss Jeanette Thomas** assisted in the Pharmacy Department of the Children's Hospital during the absence of the Chief Pharmacist, Mr. S. A. Downie, at the Melbourne meeting of A.N.Z.A.A.S. In addition to Section "O" Mr. Downie attended several sessions of the other sections.

**Mr. B. Wandke** relieved Mr. D. Penhall, Vice-President of the Society, for the week when he participated in Section "O" meetings in Melbourne. Mr. R. A. Anderson, of the Pharmacy Department, Royal Adelaide Hospital, returned from Melbourne on the same train as Mr. Penhall.

**Mr. Evan J. Nicholas**, lecturer in charge of the Pharmacy Laboratory of the Technical College, St. George Terrace, Perth, called at the Pharmacy Laboratory at the University early in September on his way home from the meetings of Section "O," A.N.Z.A.A.S., held during August in Melbourne.

**Section "O"—A.N.Z.A.A.S.**—South Australia had the distinction at the recent meetings of Section "O" of being represented by students in the course of their training to qualify. Those who attended were Mr. B. Stock from J. Pickering's; Mr. B. Tregilgas from R. Gwynnes and Mr. R. Maloney of the Pharmacy Department at the University. The latter provided Mr. A. Bowey with transport in his car from Melbourne.

**Miss M. Croft**, who is to marry Mr. J. Beilby in January next, has had letters from Miss P. Stanley, telling of a hot trip through the Red Sea, seeing the sights of Cairo and being offered a job at £20 per week on arrival in England. The job had to go as arrangements had been made for a tour of Wales, Scotland and Ireland in a Ford Prefect. Late in August Pat left by boat for Bergen, to tour the Scandinavian countries, with the object of getting back to London during October, and then seeking a job for the winter months.

**Miss N. Gerard** has been on a month's tour of the eastern coastline on M.V. "Manoora," starting from Melbourne. In the two-day stay in Sydney they visited the main sights and saw Lionel Lever. Then on to Brisbane to sample sugar cane, bananas from "fingers" and pineapples fresh cut from the plant. The trip extended to Townsville, Magnetic Island and Cairns, with a return visit to Sydney on the way back. On her return early in September, she joined the staff of Warren's pharmacy in John Martin's emporium.

**University Conversazione.**—The portrait of Professor A. Killen Macbeth, which was hung in the lecture room of the Pharmacy Department immediately after the complimentary dinner at which it was unveiled, at-



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## SOUTH AUSTRALIA—Continued

tracted a good deal of attention during the recent Conversazione of the University. The many displays in the Pharmacy Department were well explained to visitors by the office-bearers of the Students' Association, Mr. J. Jackson (President), Miss H. Smith (Secretary), Mr. D. King (Treasurer) and a band of willing fellow students.

**Examination in Practical Experience.**—At the September meeting of the Pharmacy Board, Messrs. B. Mil-dren and L. Craig reported the successful outcome of the first examination in Practical Experience as required by the new regulations under the Pharmacy Act. Most of the candidates reached the required standard. These results will be combined with those found by Messrs. N. Smyth and R. Taylor in their scrutiny of the Galenical Note Books of the same candidates so that a certificate of competency in syllabus No. 774 may be provided for the Board of Studies in Pharmacy in December next.

**Death from Kerosene.**—A two-year-old child, Philomena Van der Corput, died during the month after having drunk kerosene. The parents, Mr. and Mrs. Van der Corput, Dutch migrants, had been in Australia for only eight months. Detectives are preparing a report for the Coroner.

### ENGAGEMENTS

**Forward—Mitchels.**—The engagement is announced of Shirley Ann, elder daughter of Mr. and Mrs. A. G. Forward, of Barmera, to John Roger, only son of Mrs. M. E. and the late Mr. A. C. Mitchels, of Largs Bay.

**Richards—Manhire.**—The engagement is announced of Barbara, only daughter of Mr. and Mrs. W. L. Richards, of Broken Hill, to Donald, younger son of Mr. and Mrs. Manhire, of Hendon.

### WEDDINGS

The marriage of Peg, daughter of Mr. and Mrs. L. Groves, of Golfands, to Davis, son of Mr. J. Ardill, of Henley Beach, was celebrated in Our Lady of Victories Church, Glenelg, on August 20. Following the ceremony a reception was held at Russell Court.

The marriage of Eileen, daughter of Mr. and Mrs. E. E. Schubert, of Mount Gambier, to Bruce Scott, son of Mrs. W. Young, of Plympton, and the late Mr. A. H. Young, formerly of Owen, was celebrated in St. Martin's Lutheran Church, Mount Gambier, on August 20.

### BIRTHS

**Frazer** (nee Pine).—A son to Margaret and Ken, on September 6, at Memorial.

**Hearn.**—At Calvary Hospital, on September 10, to Pat and Wally—a son (Richard John).

Congratulations are in order for **Mr. and Mrs. Campbell Lord**, of North Essendon, Victoria, who have a baby son, David Campbell. Mrs. Lord was Miss Ruth Dowding, of Kingwood, S.A.

**Rosewall.**—On August 12, at Memorial Hospital, to Bob and Janet—a daughter.

**Veitch** (nee Casbolt).—On September 1, at Memorial Hospital, Peterborough, to Desley and Bob—a daughter (Jane Marie).

### PHARMACEUTICAL SOCIETY GIFT TO UNIVERSITY

The Pharmaceutical Society of South Australia has made a gift of £250 to the University of Adelaide Union Building Appeal for £200,000, and a further sum of £100 has been donated to the same fund by the Adelaide University Pharmaceutical Students' Association.

In accepting the Pharmaceutical Society's cheque from the President of the Society (Mr. A. A. Russell), Professor D. O. Jordan, Chairman of the Board of Studies in Pharmacy at the University, thanked the members of the Society for their generous support.

### LEGISLATION TO BAN HEROIN

It has been announced that the importation of Heroin into South Australia will be banned as from October 1, 1955. In a statement on the subject, the Director-General of Public Health (Dr. A. R. Southwood) said that this action was in line with that being taken in all other States before the end of 1955. Dr. Southwood said he agreed that the ban had been recommended by the World Health Organisation after careful consideration by toxicologists.

Heroin had some good uses—especially as a sedative in cough mixtures—but its potential evil far outweighed its good, and there were other less harmful drugs to take its place.

### EMPLOYERS AND EMPLOYEES SUBMIT CONFLICTING AWARD CLAIMS IN INDUSTRIAL COURT

The Industrial Court on August 18 began the hearing of conflicting applications by employers and employees in pharmacy for new awards covering persons filling managerial positions. Representatives of employers sought a weekly wage of £20/3/6 for male managers and £18/12/- for male relieving pharmaceutical chemists. For females rates of £15/2/6 and £13/18/6 respectively were asked. A claim was submitted also for a 42½-hour working week. Other demands were for time and a half overtime for duty in excess of ordinary weekly hours, and the same rate for work exceeding two hours on Sundays or public holidays; two weeks annual leave with pay; and 42½ hours sick leave annually, cumulative up to five years. Employees' representatives asked for £24 a week for male or female managers; a working week of 40 hours—between 8.30 a.m. and 6 p.m. Monday to Friday, and between 8.30 a.m. and 11.30 a.m. Saturdays; overtime at the rate of time and a half for the first four hours and double time thereafter, with time and a quarter for Saturday morning work, and double time for duty on Sundays and public holidays.

The current award, which has been in operation since 1948, fixes a weekly wage at £16/14/- for managers with the duty of buying, and £15/1/6 for those without such duty. Working hours at present are 42 hours a week.

Mr. R. H. Dunn with Mr. G. C. Lane appeared for the Friendly Societies Medical Association and the Federated Pharmaceutical Service Guild; Mr. R. E. Bannister for the Federated Miscellaneous Workers' Union.

A decision is not expected to be given until some time in October.

### POST-GRADUATE EVENING

The Pharmaceutical Society of South Australia held its second post-graduate evening for 1955 on September 8. The programme was a departure from normal practice because it was not directly concerned with things pharmaceutical.

Sixty members attended in the very comfortable staff club room at the University. In the absence of Mr. A. A. Russell, through illness, Mr. D. F. J. Penhall, Vice-President, welcomed Professor T. D. Campbell, the guest "speaker."

Professor Campbell, D.Sc., D.D.Sc., Professor of Dental Science in the University of Adelaide, is also an anthropologist of note. He has made many trips into the Australian inland studying our aborigines and their ways of life. He began the programme with a number of coloured slides of inland scenery to give a general idea of the country, then showed three colour films each of about 15 minutes duration.

The first film portrayed something of aboriginal life and culture; it depicted an elder of the tribe passing on to younger men some of their folk-lore and tribal customs. The second was a film made by Prof. Campbell himself, it dealt with the aborigines' search for food, his diet and his cooking habits. This film has achieved very



## SOUTH AUSTRALIA—Continued

considerable renown and has been shown in many countries overseas. A number of overseas scientific organisations have acquired copies of it. It was shown at last year's International Film Festival in Rome, and has been televised by the B.B.C.

The third film, also made by the Professor, showed the effect on these people of institutional life. A group shown first in their natural conditions are shown again living in a Government settlement. The difference is sad. Completely unclothed and in their natural environment in the first two films and the early part of this one, the aborigines were regal figures, striking men and women who carried themselves with effortless dignity and grace, never suspected in them by most people who have seen them in "civilisation." Then in white man's clothes, living near a white man's settlement, these same people seemed tawdry and cheap. The story was that civilisation owes these people something befitting their natural dignity—it was convincingly told.

At the conclusion of the films Mr. S. A. Downie moved a vote of thanks, following which the Professor answered questions informally for a time, and the evening was finally concluded with supper.

### PHARMACY BOARD

#### Monthly Meeting

The Pharmacy Board of South Australia met at 25 King William street, Adelaide, on September 14, at 7.45 p.m.

**Present.**—Mr. K. S. Porter (President) in the Chair, Messrs. E. F. Lipsham, A. E. Bowey, L. A. Craig, G. L. Burns, B. F. Mildren, D. C. Hill, and the Assistant to the Registrar.

**Correspondence.**—The New South Wales booklet, "Guide to Training of Apprentices," had been examined in detail by all members between meetings, and they submitted their observations on the detail contained in the publication. It was considered that the time was not opportune for the production of a similar publication in this State, but further consideration was to be given to the matter at a later date.

A circular was received from the Pharmaceutical Association of Australia re proclamation of the date on which the new edition of the A.P.F. will operate in Victoria. Consideration of this circular by the Council of the Pharmaceutical Society was reported to the meeting, and it was decided that the Department of Public Health in South Australia be advised of the commencing date of operation.

A letter was received from the Pharmaceutical Association of Australia forwarding a copy of a report from Mr. F. H. Burton on the presentation of the A.P.F. at the Medical Exhibition in Sydney.

A circular was received from the Pharmaceutical Association of Australia advising that the Melbourne meeting will be held from May 22 to 30, 1956.

**Apprentices.**—With an application for extension of indentures due to National Service Training was a letter advising that the master's copy had been lost. The Board viewed the apparent carelessness with dissatisfaction.

**Labels.**—The copies of labels received from 27 country pharmacists were produced for examination, and a report will be submitted to the next meeting.

**Partnerships.**—The existence of apparent partnerships contrary to the provisions of the Pharmacy Act were reported, and the necessary procedure to ensure discontinuance was set in motion.

**Depots.**—The Inspector reported on one visit being made to an alleged depot contrary to the regulations. Further consideration was deferred until next meeting.

**Finance.**—Statement for the month of August was

submitted and adopted, and accounts totalling £25/8/3 were passed for payment.

**Practising Certificates.**—Letters were received from the Pharmaceutical Society of Great Britain acknowledging receipt of certificates of identity for Messrs. R. G. Chesney and R. R. Branson.

Letter to Pharmacy Board of New South Wales, forwarding certificate of identity for Mr. P. R. M. Maxwell.

**Relievers.**—Mr. R. L. Burlinson to Messrs. H. Young, R. E. Martin, S. P. Head and R. Gartrell. Mr. R. H. Brice to Messrs. Walter C. Cotterell, J. J. M. Retallick, G. Murrie and E. G. Highman. Mr. D. C. Farley to Messrs. R. F. Gwynne and G. P. Bartold. Mr. P. R. M. Maxwell to Webbers Pharmacy. Mr. W. R. Caught to Webbers Pharmacy. Mrs. F. P. Hayter to Mr. R. A. Lower. Mr. J. A. Purches to Mr. A. A. Russell. Mrs. H. J. Southcott to Mr. A. A. Russell. Mr. M. J. Palk to Messrs. G. M. Smylie and B. A. Statton. Mr. S. M. Mudie to Messrs. H. E. Martin and A. H. Anderson. Mr. D. S. Warren to Mr. E. E. Hogben. Mr. K. I. Haddy to Mr. P. K. Porter. Mr. J. R. Mitchels to Mr. B. A. Scrivener. Mr. R. W. Phillips to Messrs. R. E. Gryst, R. B. Martin and Webbers Pharmacy.

**Registration of Premises.**—Applications received and noted from Messrs. F. P. Hemmings, T. I. Lee, R. K. Michael, P. M. Gryst and R. H. Callaghan, H. D. Cheek, J. E. M. Hession.

### PHARMACEUTICAL SOCIETY

#### Annual Meeting

The Annual Meeting of the members of the Society was held in the Cuzon Theatre, Gawler Place, Adelaide, on August 31, 1955, at 8 p.m.

The formal business included the minutes of the last meeting, the presentation of the receipts and expenditure for the year, together with the audited balance-sheet.

**Auditor.**—A new auditor, Mr. G. Levitt, was appointed on account of the resignation of Mr. K. Oswald, who has held the position for many years. Mr. Oswald's resignation was accepted with regret, with due recognition of the fact that his commitments as a country pharmacist made the retention of the position somewhat impractical.

**The Annual Report.**—The President, Mr. A. A. Russell, then presented the annual report, mentioning several matters already reported in "The Australasian Journal of Pharmacy," such as the annual elections, the election of officers, the filling of an extraordinary vacancy on the Council, appointment of an assistant, Mr. C. Edwards, to assist the Secretary, Mr. H. C. Martin, and the recent visit of three members of the Council to Melbourne to attend meetings of Section "O" of A.N.Z.A.A.S.

Other matters reported were:—

**Education.**—Maintaining the relatively high standard of pharmaceutical education in this State is a matter constantly before the notice of the Council. Relative figures of enrolments in the course of the past three years are: 1953, 46; 1954, 45; 1955, 39. No efforts are spared to obtain the most up-to-date equipment and text-books required by students, and co-operation with members of the University staff exists in every way.

Due to the introduction of the new system in 1953, it was necessary to revise the conditions of awards and prizes. A silver medal will be provided in 1956, and annually thereafter for the fourth (and final) examination, for the runner-up to the recipient of the gold medal, provided credit standard is reached. Concern was expressed at the number of first-year failures in 1954, and the Council has co-operated with the A.U.P.S.A. in endeavouring to find a solution and avoid a repetition of such an unsatisfactory result.

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## SOUTH AUSTRALIA—Continued

**Advisory Committee.**—This committee has met several times during the year, and dealt with matters reported to it by chemists. Members are urged to advise the Secretary of any position where friction might arise between himself and another member. The best results are achieved where a matter can be dealt with early.

**A.P.F. Revision.**—The A.P.F. Revision Committee has been active during the year, and its meetings considered the galley proofs of the 8th Edition. Numerous alterations and additions were suggested, and this culminated in Messrs. Anderson and Downie spending a week-end in Melbourne conferring with Mr. Nigel Manning on the proofs. The new edition has now been received and copies are being distributed.

**Post-graduate Lectures.**—Mr. Russell spoke of the excellent meeting held on July 20 last, and asked members to attend the next talk on September 8 by Professor T. D. Campbell on aboriginal life. The final evening in the series is scheduled to be held on Tuesday, October 18, and once again three interesting subjects, viz., Antihistaminics, Insulins and inaccuracies found in dispensing, will be presented.

**Advertising.**—Several matters relating to alleged unethical advertising came before the notice of the Council during the year. All were fully investigated and discussed by the Council, and satisfactory results were achieved.

**Benevolent Fund.**—One payment of £25 has been made from the Benevolent Fund for the benefit of the children of a deceased member, and the balance remaining is now £675/13/3.

**Prescription Proprietaries Card Service.**—Members continue to subscribe to this valuable service of "The Australasian Journal of Pharmacy," and those who are interested may inspect sample cards in the Society's office.

**British Pharmaceutical Conference.**—The Chairman's address was considered by the Council, and the regulations affecting examinations of the Pharmaceutical Society of Great Britain (which came to hand with a conference report) were analysed. It was noted that the curriculum in this State compared favourably.

**Linstead Report on Hospital Pharmacy.**—Also from Great Britain came the report of a sub-committee under the Ministry of Health on a survey made of hospital pharmacy. This was examined in detail by Mr. E. F. Lipsham, and his report to the Council indicated that the publication would prove to be of great help to those engaged in hospital pharmacy in this State. It had also shown that, taking into account the relative sizes, there were actually no great differences between hospital pharmacy services in Great Britain and South Australia.

**Federal Council of Pharmaceutical Societies.**—Your Council is very dissatisfied with the progress made by this body, and correspondence has passed asking for details of the actual aims and future activities. As the result was negative, the Secretary of the Federal Council has been informed that unless a more definite and progressive policy is advised, this Society will cease contributions and discontinue membership after December 31, 1955. Other interested States have been advised of the decision.

**Professor A. Killen Macbeth.**—At the close of the academic year in 1954 Professor A. Killen Macbeth, C.M.G., M.A. (St. And.), D.Sc. (Belf.), retired from the University staff. It was with sincere regret that the Council recorded this, and steps were immediately taken for the Society to pay tribute to his fine service to Pharmacy in South Australia over 26 years. On your behalf, the Council has had a portrait of the Professor painted by Mrs. Ingrid Erns, a prominent artist of this State.

The portrait was unveiled and the presentation of a grandfather clock made at a successful complimentary

dinner given by the Society to the Professor at the Oriental Hotel on August 11 last, which, incidentally, was the anniversary of his birthday. The Council suitably congratulated Professor Macbeth, both on his election as an Ordinary Member of the Royal Australian Academy of Science and on the conferring of the title Professor Emeritus on him by the Council of the University.

**New South Wales Flood Relief.**—In co-operation with the Guild Executive, the Council appealed to pharmacists in South Australia. This resulted in £178/10/ being handled by the Society's staff, and forwarded on to "The Australasian Journal of Pharmacy." This result was most encouraging for such a worthy cause.

**Public Relations Secretariat.**—The Council has continued to co-operate with the Secretariat in an endeavour to foster relationship between the pharmacists and the public, and supplied information on pharmaceutical education and the history of pharmacy for publication in "The Australasian Journal of Pharmacy."

**Newspaper Pharmacy Supplement.**—On May 31, 1955, "The News" published a supplement on pharmacy. Due publicity was thus afforded to the profession and the education system attaching to such, and it seemed to meet with the approval of members. It was also well received by the laymen who read as a matter of everyday interest.

**Buffet Dinner.**—A successful dinner dance was held at Mt. Osmond on October 14, 1954, when members and their wives and friends were entertained.

**Complimentary Dinner.**—The usual complimentary dinner to newly qualified members was held at the Hotel Rundle on May 31, 1955. This function was well attended, and new members were given an opportunity of associating with other pharmacists.

**Golf Day.**—Favourable weather made the golf day at Victor Harbor on September 26, 1954, most enjoyable for those who made the trip. Trophies were won by Messrs. W. B. Lalor, G. K. F. Scott and Walter C. Cottrell.

**Membership.**—Our membership is increasing, and figures over the last three years are:—1953, 468; 1954, 480; 1955, 497.

After the adoption of the President's report, Mr. Russell introduced Professor D. C. Jordan, the new Angas Professor of Chemistry of the University of Adelaide. In so doing, he informed members that the Professor is a Doctor of Science of the University of London and a Fellow of the Royal Institute of Chemistry. At the time of his acceptance of the position in Adelaide (which includes the Chairmanship of the Board of Studies in Pharmacy), he was Reader in Physical Chemistry of the University of Nottingham and also a Councillor of that institution. Another important post which he held was that of guest lecturer at Princeton University, U.S.A.

## ADDRESS BY PROFESSOR JORDAN

### Atomic Power in Australia

The world today is consuming the raw materials of power, coal and oil at an ever-increasing rate. If we define a new unit, the "Q" which is equivalent to 10<sup>9</sup> British thermal units, then it has been estimated that the world is at present consuming power at the rate of 20 Q per century. However, if the present trends continue, this will have risen to 100 Q per century by the year 2000. Let us see how this demand for power is met by reserves of traditional power. World coal reserves have been estimated at 70 Q and oil and natural gas reserves as 8 Q. Thus at the present rate of consumption the reserves will last for 400 years, but by the year 2000, if the estimate of the rate of power consumed then is correct, the reserves will last for only 80 years. Thus within the next century it would appear that world reserves of traditional power will be running out.



## SOUTH AUSTRALIA—Continued

The supplies of fuel are not distributed evenly throughout the world, and it may well be that stocks in some parts may last for more than a century, whereas in other parts of the world the local stocks will last a good deal less. Indeed, in the United Kingdom the shortage of easily obtained coal is being felt now. Although the stocks of coal in the U.K. are still quite large, most of the best seams have been worked out, and the poor quality and the difficulty of obtaining coal in sufficient quantities, in spite of mechanisation, is causing anxiety. It is thus evident that we must seek new forms of power now, and the obvious alternative is atomic power.

The fuel for atomic power stations will be uranium and possibly also thorium. The source of the energy will be a nuclear reaction, in which neutrons, emitted by the isotope of uranium,  $U_{235}$ , are captured by other uranium atoms, which then break up by a process termed fission into elements of lower atomic weight, and in the process emit neutrons which can thus carry on the reaction.

The isotope  $U_{235}$  constitutes only 0.7% of ordinary uranium, but, nevertheless, ordinary uranium can be used in nuclear reactors. In some cases, the proportion of  $U_{235}$  in uranium can be enriched, but the process of enrichment is a costly one, and at the moment is only carried out in the U.S.A., and most probably in the U.S.S.R.

The types of reactors that may be designed are many. The majority of reactors in use at present are thermal or slow neutron reactors, in which the high energy neutrons emitted during fission are slowed down by passage through a moderator, a substance which should not be capable of capturing a neutron. The neutrons collide with the atoms of the moderator, and thereby lose some of their energy. Of the many reactors which are possible, four particularly interesting types will now be described.

(1) Thermal or slow neutron reactor. This consists of rods of uranium encased in metal, generally aluminium, which are embedded in the moderator material. This is generally graphite, but may also be heavy water. Cooling of the uranium rods is brought about by passage of a suitable coolant through tubes encircling the uranium rods. The coolant may be a gas, or a liquid metal such as sodium, and is circulated through a heat exchanger of more or less conventional design, which will produce steam for a turbogenerator.

(2) The water boiler. This is an interesting and simple reactor, and incidentally one of the first made.  $U_{235}$  enriched with  $U_{238}$  to bring the content of the latter to 15% is, in the form of uranyl nitrate, dissolved in water. As the nuclear reaction occurs, the water boils, hence the reactor's name. It is cooled by water passing through stainless steel coils, which are connected to the heat exchanger. A reactor completed at Los Alamos in 1944 is still operating at a power level of 45 kilowatts.

(3) Reactor for the submarine "Nautilus." This reactor consists of rods of uranium enriched with  $U_{235}$ , submerged in a tank of highly purified ordinary water, which serves as both cooling agent and moderator. This water is circulated through the heat exchanger in the ordinary way.

(4) Fast neutron reactor. This is the type of reactor which may well become that normally used for large power stations in the future. It is best described as an atomic bomb not quite going off. There is apparently a time lag, of the order of seconds, in the nuclear reaction which is sufficient for the mechanical devices which control the distances between fissile material to operate.

Although in general outline the design and operation of a reactor is not over-difficult, the attendant problems, particularly those of engineering, are considerable. Thus, for example, with the gas-cooled reactor it is

essential that there be no leaks in the aluminium cylinder surrounding the uranium rod. This calls for 100% efficiency in aluminium "plumbing," otherwise radioactive dust will be passed into the atmosphere. Again, with water cooling using aluminium casings, corrosion of the aluminium will occur. To overcome this, zirconium is being used to replace the aluminium. But here another problem arises; zirconium contains hafnium as an impurity, and this element readily captures neutrons; thus if zirconium is used it must be free from hafnium. Another problem arises when liquid metals are used as coolants. To obtain good thermal contact, the liquid metal must wet the enclosing metal tube, and this means that it must dissolve it to a certain extent. This causes a phenomenon known as mass transfer, the transfer of the metal forming the tube from the high temperature region and its deposition in the coils of the heat exchanger. These are only a few of the many new problems that have to be solved.

Finally, we must consider the efficiency of a reactor. It is most desirable that all the fuel be used up before the reactor runs down. If the reactor runs down and leaves a mixture of uranium and fission products, it will be necessary to carry out a costly extraction process to recover the uranium. The reactor will run down if the chain mechanism is not 100% efficient, i.e., if a neutron that is captured is not always replaced by a neutron produced in the subsequent fission. These problems are not ones easily or quickly answered.

In view of these problems, it would appear unwise for any country with adequate traditional fuel resources to rush into building reactors, which will cost several millions of pounds. (The small prototype reactor for the submarine "Nautilus" cost 20,000,000 dollars, exclusive of fuel). Most of the important problems will be answered within a year or two, and provided that adequate steps are taken to train now the engineers, chemists and physicists required, it would probably be best for Australia not to build reactors of the type now being built in the U.K., but to wait until the inevitable improvements in design and efficiency have been made.

## PHARMACEUTICAL SOCIETY: COUNCIL MEETING

The Council of the Pharmaceutical Society of South Australia met at 25 King William street, Adelaide, on September 6, at 7.45 p.m.

**Present.**—Mr. A. A. Russell (President) in the Chair, Messrs. D. F. J. Penhall, E. F. Lipsham, K. D. Johnson, A. G. Evans, Walter C. Cotterell, and the Assistant to the Secretary.

**Correspondence.**—A letter was received from The Public Relations Secretariat forwarding data re the "Family Circle" magazine.

Letter from Pharmaceutical Press re the publication of The Extra Pharmacopoeia, Vol. 2, 23rd Edition. It was resolved that a copy be purchased.

**Australasian Pharmaceutical Publishing Co. Ltd. Annual Meeting.**—Mr. Cotterell, as representative of the Council attending the Annual Meeting, reported on proceedings, and in particular referred to a resolution of the company which provided for the price of the "A.J.P." to be fixed each year at the Annual Meeting for the period commencing on the first day of January in the following year. He reported that at this meeting the price had been fixed at 1/8 a copy, to operate from January 1, 1956. The 36th Annual Report of the company was then tabled.

**Linstead Report on Hospital Pharmacy.**—Letter to Pharmaceutical Society of Great Britain, advising that information forwarded had proved most helpful.

**Parke, Davis Prize.**—A letter was received from Parke, Davis & Co. Ltd. regarding dates of the visit to Sydney of prize winners in 1956, arranged to dovetail with the 5th Annual Congress of the National Union of Pharmaceutical Students of Australia, which students may attend. It was decided to forward a copy of the



Maroubra, N.S.W., Chemist Perry Brown, with co-driver Fred Reynolds, with their Redex-ready Peugeot.

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## SOUTH AUSTRALIA—Continued

letter to the Adelaide University Pharmaceutical Students' Association, and that a reply from the Council be directed to Parke, Davis & Co. Ltd. expressing appreciation of the gesture.

**University Union Appeal.**—Letters were received from the University of Adelaide and the Students' Representative Council acknowledging the donation from the Society.

**Conversazione at University.**—Mr. Lipsham reported on the Conversazione which had been held over two days from August 12 to 13, and advised that large crowds had attended the University. He outlined detail as it affected the Pharmacy Department.

**A.N.Z.A.A.S. Conference, Section "O".**—Reports were received from the Official Delegates, viz., the President, Messrs. Walter C. Cotterell and K. D. Johnson, and also from Mr. D. F. J. Penhall, who had attended. Mr. Cotterell's written report of the Conference was received.

It was decided to direct letters to Mr. Nye expressing appreciation of the work of the Organising Committee and to Mr. F. C. Kent for the hospitality of the Council of the Pharmaceutical Society of Victoria and the facilities provided by Mr. A. T. S. Sissons and the staff of the College of Pharmacy.

**Advisory Committee.**—The Secretary reported on a letter of protest which he had forwarded to the Housing Trust in the absence of the President and Vice-President in Melbourne, and read the reply from the Housing Trust of S.A. The protest concerned information which had been received regarding the possibility of leasing a shop to carry "open" chemist lines only and to be used as a consulting room for members of the medical profession. The action of the Secretary was confirmed.

**Finance.**—Statement for the month of August was submitted and adopted, and accounts totalling £894/9/3 were passed for payment.

**A.P.F.**—A report on the delivery of copies of the 8th Edition and progress sales was received from the Secretary. A similar report on the receipt and distribution of explanatory literature on the publication was received.

Mr. Cotterell reported on the meeting of the Executive of the Pharmaceutical Association of Australia on August 3, called to consider the A.P.F. Exhibit at the Medical Congress in Sydney. Minutes were tabled and received.

A cheque was received from the Pharmaceutical Association of Australia refunding expenses of the week-end visit to Melbourne by Messrs. Downie and Anderson in conferring with the Editorial Committee.

**Post Graduate Talks.**—Letters were forwarded to Messrs. R. A. Anderson, E. H. Phillips and F. M. Collins thanking them for their help on July 20.

**Annual Meeting.**—Letters to and from Messrs. Eric Scott and K. G. Attiwill inviting them to attend Annual Meeting and advising that they would not be able to attend as they were returning to Melbourne prior to that time.

A note was received from a member asking that the Society and F.P.S.G.A. annual meetings be held on dates further apart than happened this year. It was decided to advise the member concerned that, while the Council agreed with the contention, the close proximity this year was due to the following reasons:—

- The Constitutions of both bodies require the meetings to be held in August.
- This year several members of official pharmacy went to the A.N.Z.A.A.S. Conference in Melbourne, which absorbed quite a substantial part of the month.
- This was the first opportunity the Society had of introducing Professor D. O. Jordan to members,

and he was absent from the State until the end of the month.

- There is always difficulty in hiring a suitable room.

**Golf Day.**—It was decided to hold a Golf Day at Victor Harbour Golf Links on a suitable Sunday in October.

**Dinner Dance.**—It was decided to hold a Dinner Dance, similar to that held in October, 1954, on a date to be decided by a sub-committee appointed for the purpose.

### THE GUILD

### S.B.C. Meeting

The State Branch Committee of the South Australian Branch of the Guild met at 254 Sturt street, Adelaide, on September 12, at 7.45 p.m.

**Present.**—The President (Mr. H. G. Collyer) and Messrs. E. Lloyd Miller, A. A. Russell, Walter C. Cotterell, A. C. Holloway, G. K. F. Scott, R. R. Patrick, V. L. Mitchell, J. Retallick and the Secretary.

**Returning Officer's Report.**—The Returning Officer, Mr. E. Lloyd Miller, reported the result of election of members to the S.B.C. to official positions, and declared the following persons elected:

**President:** Mr. H. G. Collyer.

**Vice-President:** Mr. E. Lloyd Miller.

**Treasurer:** Mr. A. A. Russell.

Mr. Cotterell thanked the members for their support during his period as President, and wished his successor, Mr. Collyer, the heartiest support of all members.

He then invited Mr. Collyer to take the chair. Mr. Collyer suitably responded.

Upon taking the chair, Mr. Collyer extended a welcome to the new Vice-President, Mr. E. Lloyd Miller, and the Treasurer, Mr. A. A. Russell, both of whom suitably responded.

**New Members Elected.**—Mr. R. K. Michael, Glenelg; Rasheed's Pharmacy, Orroroo and Mr. H. D. Cheek, Croydon.

**Alteration to the Register.**—Mr. Gryst, of Salisbury, has taken Mr. Callaghan into partnership.

**Correspondence.**—Federal Office, re branch shops.—Resolved that the Secretary still send copies of "Gilseal News" to all branch shops.

**Federal President's Report.**—Resolved that this Branch supports the Federal President's view that the Commonwealth Chief Pharmacist should be a registered pharmacist.

**Nada Tooth Brushes.**—It was suggested by the Merchandising Service that an article be inserted in the next "Gilseal News," requesting chemists to push these lines.

**Financial.**—The monthly statement was presented to the meeting and approved, and accounts totalling £430/2/3 were passed for payment.

**Committee Appointments.**—The following members were appointed to the undermentioned positions:—

**Federal Delegate:** Mr. Walter C. Cotterell.

**Second Delegate:** Mr. H. G. Collyer.

**Liaison Committee:** The President, Vice-President and Mr. V. L. Mitchell.

**Advisory Committee:** Any two members of the Executive.

**Sub-Committee re Pharmaceutical Society Lectures and Studies:** No sub-committee to be appointed.

**Pharma-Medico Committee:** Messrs. H. G. Collyer and V. L. Mitchell.

**Wages Committee:** The President, Vice-President, Treasurer, Mr. Cotterell and Secretary.

**Pricing Officer:** Mr. G. K. F. Scott.

**Pricing and Merchandising Committee:** Messrs. G. K. F. Scott, A. C. Holloway, J. Retallick and R. R. Patrick.

**Trustees:** This subject to remain in abeyance; Secretary to report to next meeting.



## SOUTH AUSTRALIA—Continued

**Bank Authority.**—Resolved that any two jointly of the following persons be authorised to sign cheques and other negotiable documents on behalf of the State Branch: Messrs. H. G. Collyer, E. Lloyd Miller and A. A. Russell, and that the Secretary, Mr. R. J. Oswald, be authorised to endorse all cheques and other negotiable instruments for and on behalf of the Branch.

**P.A.T.A.**—Resolved that Messrs. Cotterell, Miller and the Secretary draft the letter to reply to the P.A.T.A. letter dated July 18.

**Xmas Holiday Times.**—Resolved that the following hours for Xmas be approved:—

December 24—9 a.m. to 12 a.m. and 7 p.m. to 8 p.m.

December 25—Closed all day.

December 26—7 p.m. to 8 p.m.

December 27—9 a.m. to 12 noon.

December 28—7 p.m. to 8 p.m.

December 29—Open as usual.

December 30—Open as usual.

December 31—Open as usual.

January 1—Closed all day.

January 2—7 p.m. to 8 p.m.

**Commonwealth Census.**—Secretary reported that he had made application for the pamphlets referring to this State.

**Pirie Visit.**—The Secretary to book accommodation for six members and wives for September 24, and approximately 36 for luncheon on the following day.

**Traders' Association.**—Secretary to reply and state that we agree with their suggestions, which are in accord with our own views. Members to be advised to refuse all 2 for 1 offers.

**Federal Delegate's Report.**—The Federal Delegate, Mr. Walter C. Cotterell, gave a resume of the following: Pharmaceutical Dispensers Ltd.—Resolved that Guild



S.A. Guild Annual Meeting held at the Bohemia Cafe, North Terrace, on August 30, was addressed by Mr. Eric Scott, Federal President, and Mr. K. G. Attiwill, Federal Public Relations Director. Mr. Attiwill's roving Retina caught Mr. Scott with the South Australian Guild Executive.

Back row (left to right): Messrs. Eric Scott, R. G. Oswald, State Guild Secretary; and Lloyd Miller, Honorary Treasurer. Front row: Messrs. W. C. Cotterell, retiring President, S.A. Branch, and Federal Treasurer of the Guild; and H. G. Collyer, President-elect.

endeavours to retain the name Pharmaceutical Dispensers.

**Pricing Officer's Report.**—The Pricing Officer, Mr. G. K. F. Scott, gave a resume of the following matters:—

Gilseal Baby Rucks; Gilseal Dyes; Dexsal; Medicated Soap; Eye Drops; Junior Eye Drops (members to consider this item); Paigees; Pharmatex; Propain; Nada Display Units; Advertising Discounts to Friendly Societies; States to be consulted on all new contract lines before being adopted; Meetings of Pricing Officers; Baby Foods; On-cost Margins; Drug Price Lists, Prescription Proprietaries; P.B.A. Rates, etc., Wholesalers' and Manufacturers' Price Lists and Guild Prices; Broken Quantity Calculator; Greater Co-operation with Wholesalers and Manufacturers; Unification of Wholesale Drug Prices, Veterinary Prices, A.P.S. Preparations; Various Price Alterations.

**General.**—Resolved that Mr. Miller co-operate with the Secretary in respect to the supply of information for inclusion in the State's "Gilseal News."

Remit to 3rd Schedule preparations for veterinary use to be deferred to next meeting.

Resolved that the next time price lists alterations are sent out that they be punched to suit the existing folders.

Resolved that Mr. Walter C. Cotterell be appointed the Director representing this State on the Australasian Pharmaceutical Publishing Co. Ltd.

Resolved that the Secretary contact Mr. K. S. Porter in respect to antihistamines; the Secretary to make formal application to the Central Board of Health for the release of same from control.

The meeting closed.



After the annual meeting of the South Australian Branch of the Guild, delegates enjoyed supper at the Bohemia Cafe, North Terrace. This group, snapped by Mr. K. G. Attiwill, includes Mr. A. A. Russell, who becomes Honorary Treasurer of the Branch in succession to Mr. Lloyd Miller, who moves up to the Vice-Presidency. Mr. Russell is also President of the Pharmaceutical Society of South Australia. In the photograph he is second from right, with left arm forward.

## WESTERN AUSTRALIA

### PERSONAL and GENERAL

State  
News

Members desiring publication of personal items of interest are invited to write or telephone details to the Journal Correspondent in W.A., Mr. F. W. Avenell (phone BA 4082).

Mr. J. G. Gray has accepted a position with Mr. M. Southey at the pharmacy in Forrest place.

Messrs. R. W. Dalby and W. G. Lewis attended Federal Guild meetings in Melbourne last month.

Mr. J. K. Little, recently returned from Japan, has purchased the Ocean Pharmacy at Scarborough from Mr. K. L. Medd.

Congratulations to Ian Dick on his selection as captain of the W.A. Hockey Team which played the team from India during its Australian Tour recently.

Two new pharmacies have been opened in the metropolitan area during the past month. Mr. R. M. Wiltshire has opened at St James Park and Mr. A. M. Forte at William street, Perth.

Mr. E. J. Nicholas represented West Australian pharmacy at the A.N.Z.A.A.S. Conference held in Melbourne last month. Following the Conference he witnessed the Final Dispensing Examination at the Victorian College of Pharmacy and studied dispensary procedures at the Royal Melbourne Hospital. He also spent some days at the laboratories of various pharmaceutical manufacturers in Melbourne. In Adelaide he visited the Children's Hospital and conferred with Mr. E. F. Lipsham at the Pharmacy Department, Adelaide University.

Wedding.—Congratulations and best wishes to Mr. and Mrs. Warwick Fountain, who were married on August 28.

### MEDICAL SCHOOL APPEAL

The appeal for the proposed Medical School is the main topic of conversation here at present. The opening of the appeal received good press publicity, indicating that more than half the amount required was already in hand or promised prior to the official opening.

The aim of the appeal is to raise a total of £400,000, of which £150,000 represents the balance of funds needed to meet the cost of establishing the School, and the remaining £250,000 for special projects such as research. The target from the pharmaceutical profession has been set at £5000. So far £753/14/- has been received in cash and £673/16/- has been promised, making a total of £1427/10/-.

At the Monthly Meeting of the Pharmaceutical Society on August 24, Mr. J. Griffith, Administrator of the Royal Perth Hospital, and a Director of the Medical School Appeal, gave a very interesting address on the Royal Perth Hospital. He concluded by explaining the necessity of a Medical School to function in conjunction with the Hospital, and commended the appeal to those present. Two days later the following letter was received by the Registrar (Mr. F. W. Avenell):—

"Having listened to Mr. Griffiths last evening, I am no longer in doubt as to the course which I should follow in regard to the Medical School Appeal.

"I feel that it is not too much for me to forgo the equivalent of one penny per prescription on the approximate number of prescriptions which it is likely that I shall handle during the next three years, and it is with that thought in mind that I am pleased to enclose the attached cheque (£100)."

Donations of £75 and £150 besides many smaller amounts were received from others present at the meeting.

No. 5

## VITAMIN E IN MEDICINE

BLOCK M. T. (316 Mt. Prospect Ave., Newark 4, N.J. (VITAMIN E IN THE TREATMENT OF DISEASES OF THE SKIN. Clin. Med. 60, 31-4 (1953).

Vitamin E can relieve a variety of dermatologic conditions, hitherto considered not amenable to therapy. These include: ulcerations; varicose eczema and stasis dermatitis; collagenous disorders, especially lupus erythematosus of the chronic discoid type; malignant disorders, particularly the superficial types; necrobiosis lipoidica diabetorum; and xanthomatous conditions.

Other disorders for which vitamin E therapy is helpful are: menopausal pruritus; unhealed surgical wounds and wound infections; roentgen ray burns; granulomatous tissue; the variety of conditions producing dry, scaly skin; diabetic gangrene; and leukoplakia.

It is imperative to use large doses of vitamin E, e.g. 100 mg. orally three times a day. In some cases even larger doses are needed, e.g. 600 mg. vitamin E daily orally.

KROHN B. G. (Bellflower, Calif.) and POTTENGER F. M. Jr. (Monrovia, Calif.). ALLERGIC RHINITIS: TOCOPHEROL THERAPY. Ann. Western Med. Surg. 6, 484-7 (1952).

Six cases of allergic rhinitis in which tocopherol relieved the edema and exudation are presented. The edema and exudation returned when tocopherol was withdrawn. They disappeared again when the patients resumed taking tocopherol.

All patients took a diet consisting of 4500 calories for adults, 2500 calories for children; calories were distributed as follows: 30 to 40% fat, little or no carbohydrate, balance in protein; soybean lecithin, one teaspoon with each meal; B-complex vitamin concentrate derived from rice bran, one teaspoon daily; raw liver, one tablespoon daily; and salt mixture, one to two tablespoons daily (50% of the cations being sodium). Tocopherol dosage varied from 50 to 400 mg. daily.

The diet which these six patients followed was probably important in relieving their allergy. No attempt was made to avoid any allergens to which the patients were sensitive. The diet in itself could not relieve their allergies, but it may have helped to relieve the allergic rhinitis with the tocopherol therapy where Dam and Glaser failed.

It is supposed that vitamin E relieves this allergic rhinitis because it is one of several factors that promote normal lipide and water metabolism.

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# TASMANIA

## PERSONAL and GENERAL

### State News

Members desiring publication of personal items of interest are invited to write or telephone details to the Journal Correspondent in Tasmania, Miss M. L. Williams, 276 Argyle St., North Hobart (phone B 1010).

Our best wishes for a speedy recovery to Mrs. Flynn and to Mrs. Augustoscos, who have recently been in hospital.

Welcome to Mr. Julian Brown, of Melbourne, who has arrived in Hobart. We hope he will enjoy his stay among us.

Miss Hurst has recently returned after visiting Melbourne and attending the Conference on Section "O." She seems to have had a wonderful time renewing contacts with the mainlanders.

**Engagement.**—Congratulations and very best wishes to Mr. Alwyn McDougall (better known to us all as Mac) on the announcement of his engagement to Miss Dierdre Rooke, of South Hobart.

**Wedding.**—Best wishes to Miss Edna Briggs, whose marriage to Mr. Jim Byrne was solemnised on September 17.

**Birth.**—Congratulations to Mr. and Mrs. Les Pyke (formerly Margaret Goddard) on the recent arrival of a son.

## PHARMACY BOARD

### Monthly Meeting

The Pharmacy Board of Tasmania met at 85 Elizabeth street, Hobart, on August 15, at 8 p.m.

**Present.**—Mr. H. H. Pearce (Chairman), Miss M. L. Williams, Messrs. A. G. Gould, F. H. Cartledge, L. J. McLeod, J. M. Beaumont, E. H. Shield, and the Registrar.

**Pharmaceutical Register.**—Philip Keith Stanford (ex New South Wales) and Donald Ian Stewart (ex Victoria) were registered.

**Apprentices.**—I. R. McIntosh: A request was received from I. R. McIntosh for permission to sit for his Final Examination in November, although his term of apprenticeship would not be completed until January 14, 1956. Approval was given for him to sit for this examination.

A. G. Hayward: An application was received from Mr. Hayward for approval for his apprenticeship with Mr. W. McCausland, and for exemption in Chemistry and Physics in the first year of the course, having already gained matriculation at the University of Queensland. Approval was given and exemption granted.

A. L. Moore: A letter was received from Mr. Moore requesting a report on his paper in the Final Examinations. The meeting decided to refer this matter to Dr. Burgin.

**Examinations.**—Materia Medica: As Miss Hurst, who had previously set the Materia Medica paper, would have an apprentice sitting for that subject this year, it was suggested that an approach be made to Mr. G. A. Calver to examine in this subject.

Advice was received from Dr. Burgin that there was no obstacle in the way of Supplementary Examinations in practical Pharmacy subjects. It was decided that an approach should be made to the Technical Education Branch for their agreement in having a

Supplementary Examination for Practical Organic Chemistry.

**Finance.**—The financial statement was presented showing a balance of £984/2/8. Accounts totalling £102/6/10 were passed for payment.

**Pharmacy Act.**—Advice was received from the Government Analyst that, owing to lack of apparatus, he was unable to carry out a certain analysis. The meeting decided that the matter be referred to Dr. Polya for his advice.

Mr. Pearce reported that a forged prescription had been presented to a chemist in Hobart. The matter had now been left to the C.I.B. for attention.

**Poisons Act.**—A further letter was received from the Director of Public Health regarding the allocation of our Poisons Schedule to the proposed eight uniform schedules. Mr. Shield reported that the draft was nearly completed, and would be checked before being forwarded.

The Director of Public Health advised that Dr. Maguire thought that serious gynaecological conditions could result if hormone preparations were used for too long a period. The meeting decided that this matter should be left to rest in the absence of more specific advice.

Statutory Rule 1955 No. 80 covering Regulation 11 under the Poisons Regulations was received. A letter from the Chief Veterinary Officer stated that he was objecting to the amended Regulation 11, and that he would advise his superior officer accordingly.

A letter was received from Mr. J. E. Stanton, of Queenstown, requesting advice on a number of points in the Poisons Act and Regulation. Mr. Cartledge undertook to deal with these queries.

**Inspector.**—The Registrar reported that he had had 10 applications for the position of part-time inspector, and that one applicant had still to be interviewed.

The meeting decided to leave the final appointment of an inspector to the President and Registrar.

The meeting closed at 10.30 p.m.

## PHARMACEUTICAL SOCIETY

### General Meeting

A General Meeting of the Pharmaceutical Society of Tasmania was held at 47 Murray street, Hobart, on August 22, at 8 p.m.

**Present:** Mr. E. H. Shield (President), Messrs. Eric Scott and K. G. Attiwill and 27 members.

**Welcome:** The President extended a welcome to Mr. Scott and Mr. Attiwill, who had specially stayed over in Hobart to attend this meeting.

**Federal Director of Public Relations.**—Mr. Attiwill stated he was pleased to see the steady progress in the advance of the Pharmacy Course in Tasmania, as it was a long process which met with the usual setbacks. South Australia and Victoria had their full-time course, but New South Wales had not yet been able to establish its full course.

He was pleased to see the enthusiastic interest in the Pharmaceutical Society displayed by those present, and hoped that they would encourage others to take the same interest.

Mr. Attiwill then gave details regarding the "Family Circle" Magazine.

**Presentation of Diplomas.**—The President of the Pharmacy Board, Mr. H. H. Pearce, presented Diplomas to the three Hobart candidates who were successful in the last Examinations of the Pharmacy Board, namely Miss A. Wilks, Mr. D. A. J. Ralph, and Mr.



## TASMANIA—Continued

A. G. McDougall. Mr. Pearce congratulated these students on gaining their qualifications, and particularly mentioned Mr. McDougall's achievement in gaining a complete pass in his Final Examinations at his first attempt.

**Mr. Eric Scott's Address.**—Mr. Scott stated that the education of their students was the basis of pharmacy. A full-time course was now considered essential. This had taken place in England and was part of the development of the world. Pharmacists in meeting this challenge could and always had been able to stand up to all criticism.

While there were six States with six different views, a Federal body could do nothing to assist, and would therefore be redundant and serve no purpose. It could only exist by taking the life blood from the States. For this reason Victoria had withdrawn from the Federal Council of Pharmaceutical Societies.

Mr. Scott referred to the progress under the National Health Act and the achievement of the A.P.F. 1955.

He mentioned that the Society in Victoria was having considerable success with discussion groups, at which specialists gave talks followed by discussions. He stressed that members must appreciate the full value of the Pharmaceutical Society, and commended their support.

Mr. Shield thanked Mr. Scott and Mr. Attiwill for the considerable trouble they had gone to in attending this meeting, and also for the suggestions they had put forward.

Mr. Copeland supported Mr. Shield's remarks, and members expressed their appreciation by acclamation. The meeting closed at 10 p.m.

### PHARMACEUTICAL SOCIETY COUNCIL MEETING

The Council of the Pharmaceutical Society of Tasmania met at 85 Elizabeth street, Hobart, on September 6, at 6.15 p.m.

**Present.**—Mr. E. H. Shield (President), Miss E. L. Knight, Messrs. A. G. Gould, A. P. Brammall, C. A. Robertson, and the Secretary.

**Teaching Facilities.**—The Secretary reported that Dr. Burgin had advised that new rooms had been made available at the Technical College, and his equipment had now been moved in. It was hoped that the necessary benches for the laboratory would be completed immediately.

**Parke, Davis Prize, 1956.**—Advice was received from Parke, Davis & Co. Ltd. that "the visit to Parke, Davis" for 1956 was being arranged to follow on from the N.U.P.S.A. Congress. Members expressed appreciation for the consideration given by the company in this matter.

**Spastic Children's Appeal.**—A request from the organisers of this appeal for our Society to sponsor one of the entrants in the Miss Tasmania contest was considered, but members were of the opinion that such a sponsoring was beyond the scope of the Society.

The matter was left for Mr. Shield to arrange for some chemists of Hobart to sponsor Miss Mary Judd.

**Financial.**—Accounts totalling £21/7/8 were passed for payment.

**H. H. Pearce Annual Essay, 1955.**—Only one entry was received for this competition, being from Miss Yvonne Atkins. The consideration of this essay was left in the hands of Dr. Burgin and the President.

**General Meeting.**—Members decided that a doctor should be asked to talk at the next general meeting, on October 19.

Mr. Shield undertook to approach a doctor on this matter.

**Meeting Night.**—Members decided that the night on which Council meetings are held should be changed to the second Monday in each month.

The meeting closed at 7.15 p.m.

## THE GUILD

### Annual Meeting

The Annual General Meeting of the Tasmanian Branch of the Guild was held at Campbell Town, on Sunday, August 21, 1955, at 11 a.m.

**Present.**—Mr. G. M. Fleming (President), Messrs. Eric Scott, K. G. Attiwill, G. S. Copeland, T. B. Elliott, W. S. M. Joscelyne, C. O. Holmes, C. P. Roots, A. G. Crane, E. J. Bourke, A. Fennell, J. J. Kaufman, A. K. Smith, W. G. Webb, F. H. Cartledge, D. E. Fuller, N. G. Dineen, F. A. Woodroffe, K. H. Jenkins, J. B. Warland Browne, L. W. Palfreyman, G. A. Copeland, W. R. Bennenworth, J. A. Ingram, G. A. Calver, A. G. Gould, D. R. Crisp, E. Reynolds, W. J. Trevaskis and the Secretary.

**Welcome.**—The President extended a welcome to Mr. Scott and Mr. Attiwill, who had flown from Melbourne to be present at the meeting.

The minutes of the Annual General Meeting held on August 22, 1954, were read and confirmed.

**President's Report.**—The report having been circulated was taken as read, and Mr. Fleming, in moving its adoption, spoke on the several activities during the year. He expressed satisfaction that each new pharmacy being opened was coming within the membership of the Guild. The loss of Mr. J. H. Gould from the "Gilseal News" Sub-Committee was making it very difficult to prepare sufficient items for the Tasmanian section.

He expressed appreciation for the work of the Federal Merchandising, Public Relations and the Federal Council members, and thanked members of the State Branch Committee for their loyal support throughout the year.

Mr. J. B. Warland Browne, in seconding the adoption of the report, expressed appreciation for the "Gilseal News," which was providing a very useful service. He also referred to the achievements of the Merchandising Department, and expressed appreciation for the holding of meetings at Campbell Town, which proved a very valuable link between North and South.

Mr. Crisp congratulated Mr. Fleming on the work of the Branch and on his untiring efforts as Chairman.

Mr. Calver concurred with Mr. Crisp in thanking the Chairman for the manner in which he had combined the North and South in the Guild activities.

The report was adopted unanimously.

**Financial Statements.**—The financial statements having been circulated were taken as read.

The Hon. Treasurer, Mr. K. H. Jenkins, in moving the adoption of the Financial Statements, expressed pleasure at a surplus having been shown for the year's activities, particularly in view of rising costs.

Mr. A. G. Gould, in seconding the adoption of the Financial Statements, stated that although the Branch had finished with a surplus, he thought it would be unwise to reduce the charge for the Pricing Service, as members felt more than satisfied with the price being paid for this service.

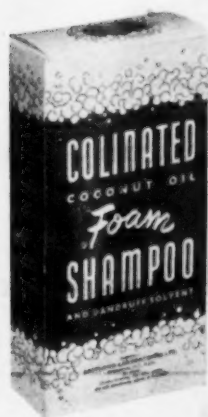
The financial statements were adopted unanimously.

**State Branch Committee.**—The Returning Officer, Mr. A. G. Gould, reported the result of the ballot for the election of six members to the State Branch Committee. Voting was:

G. S. Copeland . . . . .	63
G. M. Fleming . . . . .	62
C. A. Robertson . . . . .	54
A. G. Crane . . . . .	49
A. Fennell . . . . .	48
D. R. Crisp . . . . .	42
T. A. Stephens . . . . .	41
W. G. Webb . . . . .	29

The President then declared the following members elected for the ensuing two years: Messrs. G. S. Copeland, G. M. Fleming, C. A. Robertson, A. G. Crane, A. Fennell and D. R. Crisp.

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## TASMANIA—Continued

**By-laws.**—The adoption of the revised By-laws was carried unanimously, on the motion of Mr. D. R. Crisp, seconded by Mr. G. A. Calver.

**State Branch Committee Meetings.**—Mr. Crisp suggested that consideration be given to paying the expenses of one Northern member to travel to Hobart to attend meetings of the State Branch Committee.

Mr. Warland Browne considered this would provide an excellent liaison, and he was sure the suggestion would meet with approval.

Mr. Copeland considered that the main obstacle to a member attending the Committee meetings was not finance, but the problem of relievers, and the fact that meetings were held on Thursday night, which made it difficult for a member to leave his pharmacy at that time of the week.

It was suggested that Monday would be more satisfactory.

Mr. Calver stated that while finance was not the main problem in a member attending, he considered that if a man was willing to go to these meetings he should be subsidised.

The President agreed to discuss this matter at the next State Branch meeting.

**Two-for-One Offers.**—Mr. Calver reported that the general feeling was that these offers were not satisfactory and that the give-away of articles only cut down trade in the give-away lines. The President stated these offers are against Guild principles.

**North-West Coast Members.**—Mr. Elliott stated that members in Smithton and Burnie had told him that they would be willing to go to Launceston for a meeting, but that Campbell Town was too far.

Mr. Browne suggested that a meeting be held on the North-West Coast, and the President agreed that an endeavour would be made to arrange such a meeting in the summer.

**Unsatisfactory Packing.**—Mr. Bourke asked that the matter of poor packing and poor quality of a number of products which he named be investigated.

The President agreed to bring this matter before the State Branch Committee.

**Hot Water Bags.**—Mr. Calver asked whether the Guild could arrange for the purchase of a large quantity of lower-priced hot water bags.

Mr. Copeland stated that he was not in favour of lowering the standard. He considered that a good quality bag should be arranged.

Mr. Trevaskis supported these views, and the meeting agreed that the Federal Merchandising Department be advised that this Branch would like to have a good quality Gilseal Hot Water Bag on the market.

**Medical Benefits Fund.**—Mr. Copeland asked whether an approach could be made for a simpler form of recording payments for the Medical Benefits Fund. The President advised that this matter was being investigated by Mr. Robertson, who was at present in Victoria.

After discussing the commission allowed for collection of Medical Benefits Fund subscriptions, the meeting decided that a remit should be forwarded to the Federal Council for consideration of an increase in this commission.

**Stock Records.**—Mr. Bourke suggested that an approach be made to firms such as Colgates and Nyals to arrange their order form to serve the purpose of a stock record.

Mr. Joscelyne supported this idea and the meeting decided after discussing the matter that the subject be discussed through the "Gilseal News."

**Credit Accounts.**—Mr. Bourke suggested that members should get together with the object of reducing the number of credit accounts opened by persons without responsibility.—It was decided to discuss this matter through the "Gilseal News."

The meeting adjourned at 12.40 p.m. for lunch, and resumed at 2 p.m.

**Federal President.**—Mr. Scott stated that although pharmacy was quite prosperous today, a large number of persons were coming into the pensioner group with a result that more of our business is going to be done on a discount basis and needs careful watching in the future.

He referred to the Minister's Standing Committee under the National Health Service, and other matters that were receiving attention in relation to this service.

The work of the Committee on the new A.P.F. was praised by Mr. Scott. He stated that it was hoped that it would be used as the formulary for our National Health Service.

The Therapeutic Substances Act was being watched closely.

The Guild Magazine, Mr. Scott considered, was a medium through which to bring customers back to pharmacy and retrieve lost business.

**Federal Director of Public Relations.**—Mr. Attiwill stated that the running of a Federal Guild is not an easy matter, particularly with the many differences of members. However, the Guild is a democratic body and the Federal Council can always be relied upon. The Public Relations were very much political relations, and he considered that pharmacy was held in high esteem in this sphere. The combined "Gilseal News" issued by five States was looked upon to speak for pharmacy in preference to views expressed by any one State upon matters of Federal policy in which a united Federal Guild voice brought obvious advantages to all members.

Mr. Attiwill gave details regarding the "Family Circle" Magazine, and stressed that this was a Store Traffic Magazine, and was not to be regarded as a news-agents' magazine.

Mr. Copeland moved a vote of thanks to Mr. Scott and Mr. Attiwill, who, he considered, gave a great stimulus to State affairs, as was evident by their attendance at this meeting. He expressed appreciation for the manner in which the activities of the Federal Council had been conveyed to the meeting.

Mr. Crisp, in seconding the motion, thanked Mr. Scott and Mr. Attiwill for the considerable trouble that they had gone to in coming to Tasmania to attend the meeting.

The motion was carried with acclamation, and the meeting closed at 4 p.m.

## AN IMPROVED SPECTROSCOPE

In reply to a question by Mr. Swartz in the House of Representatives on May 11, the Minister in Charge of C.S.I.R.O., Mr. R. G. Casey, said he was interested that the honorable member should know about this development. It was true that an improved spectroscope had been invented by a Mr. Walsh, who is a scientist in the Industrial Chemistry Division of the Commonwealth Scientific and Industrial Research Organisation. That officer made this development in his official capacity, and not in his private capacity. It was believed, in fact it could now be said, that it had been proven, that this improved spectroscope would be of wide application, both in scientific laboratories and in industry, and perhaps, in particular, in connection with public health. Speaking from memory, two or three of those instruments were already in use in Australia, and an increased number of them would be in use in the coming 12 months. About 200 of them were in use in other parts of the world, largely in the United States of America. Their applications varied from matters which would certainly be of assistance to primary production and secondary production to matters connected with public health, especially in the investigation of blood. It was true that royalties had been received. The royalties must by now be approaching a figure of 40,000 dollars from the United States alone. Certainly there would be further royalties accruing from Mr. Walsh's invention. One could say with truth that Mr. Walsh's invention had been a notable contribution to Australian science and to world science, and it had added appreciably to the prestige of Australian scientific research.



# NEW SOUTH WALES

## PERSONAL and GENERAL

## State News

Members desiring publication of personal items of interest are invited to write or telephone details to the Journal Correspondent in N.S.W. Phone BU 3092.

*Government is a contrivance of human wisdom to provide for human wants.*

—Burke.

**Mr. A. S. Bowden** has purchased J. Robinson's Pharmacy at Dapto.

**Mrs. Joy Bruce** is in business at 155 George street, Windsor, trading under the name of Bruce's Pharmacy.

**Mr. R. A. Borthistle** has opened a pharmacy in No. 8 Villawood Shopping Block, Villawood road, Villawood.

**Mr. J. A. Knox** has opened the Knox Pharmacy in Pioneer street, Batlow. Mr. Knox is a son of Mr. R. R. Knox, of Tumut.

**Mr. J. L. Montague** has purchased the Bunnerong Pharmacy, 163 Perry street, Matraville, previously owned by Mr. Z. Gabris.

Sydney was glad to welcome **Mr. Noel Wilson**, President of the Chemists' Service Guild of New Zealand, who arrived on August 31. He was accompanied by **Mr. Joe Peel**, who is also a New Zealander.

**Mr. W. Norman**, of Ulmarra, has disposed of his business and is retiring. On resigning from the Pharmaceutical Guild, Mr. Norman states: "Looking back over the years, I can see the wonderful work which has been done. Where we would have been without the Guild I don't know."

**Engagement.**—The engagement is announced of Shirley Windred, of Windsor, to Albert Ralph, Pharmacist, of Newcastle.

**Charged Doctor "Has Cancer."**—An elderly doctor facing two serious charges has cancer, his counsel said in Central Court recently. Dr. George Stanley Thompson, 74, of Carr street, Coogee, is charged with having used unlawfully instruments on women on May 26 and 27. Mr. Beavers, S.M., remanded him to October 10 on £250 bail. Mr. H. W. May, who asked for an adjournment, said Dr. Thompson could be brought to court only on a stretcher. It would be a considerable time before any improvement in his condition could be expected.

**Remand on Bogus Doctor Charge.**—Albert John Macquarie Chapman, Churchill street, Strathfield, aged 50, process worker, appeared in Burwood Court on charges of being an unregistered medical practitioner and an unregistered physiotherapist. Slim, bespectacled and neatly dressed in a grey suit, Chapman asked Mr. Sargeon, S.M., for a remand because his solicitor, Mr. A. Brindly, could not attend. The prosecutor (Sergeant Mason) said he had no objection to the remand and was satisfied with Chapman's own surety. Mr. Sargeon, granting the remand, allowed Chapman £50 bail on one charge, bail not being required on the second.

**Gave Baby Morphine.**—A young mother charged with giving poison to her three-weeks-old baby, now regretted her action, Burwood Court was told recently. The woman, Freda Margaret Walsh (20), Balmoral avenue, Croydon Park, was charged with giving a morphine tablet to her baby, Brian Thomas Walsh, with intent to murder him on August 16. Sergeant Pym (prosecutor) told the court Mrs. Walsh had been looking after an elderly invalid woman, whose condition had apparently, coupled with the birth of her baby, made

severe demands on Mrs. Walsh's health. When the child became ill after the tablet, she had taken it to hospital, Sergeant Pym said. The baby's condition had improved to some extent, and there was no immediate fear for his life. Mrs. Walsh had indicated to police that she had been very distressed, and had regretted what she did, said Sergeant Pym. Mr. Walsh told the court there was no fear that his wife would harm herself if granted bail. Mr. Sargeon, S.M., allowed bail of £50, and remanded Mrs. Walsh until August 26. Officials at Renwick Hospital for Infants said later the baby's condition was satisfactory.

**Newcastle Lecture.**—Members of the Newcastle and Hunter Valley Pharmacists' Association heard a lecture at Newcastle by Dr. Adrian Johnson on September 21, his subject being "An Illustrated Survey of Skin Problems."

**Presentation of Registration Certificates.**—Certificates of registration will be presented to recent pharmacy graduates at a ceremony in the Stawell Hall, to be held on Wednesday, October 12.

**Zone Meetings—Gosford, Newcastle.**—Zone meetings were held at Gosford and Newcastle on September 17 and 18 respectively. Good attendances characterised both meetings.

**Guild Trade Dinner.**—The President and members of the New South Wales State Branch Committee entertained representatives of the drug trade at dinner at Ushers Hotel on September 14.

**Guild Annual General Meeting.**—The annual meeting of the N.S.W. Branch of the Guild was held at Science House on August 31. A report of the meeting appears elsewhere in this issue.

**Chemist, Wife Hurt in Crash.**—When their car skidded and crashed into a tree in Werona avenue, Killara, recently, Clarence Arthur McCoombe, 51, chemist, and his wife, Gladys, 46, of Burkwood avenue, Killara, were injured. The Central District Ambulance took them to Royal North Shore Hospital, where they were admitted and treated for extensive injuries to the face and body.

**Boy Dies of Lead Poison.**—A four-years-old boy who had a habit of sucking toothpaste tubes died from lead poisoning, the City Coroner (Mr. F. L. McNamara) found recently. The boy, Colin John Fennell, Carlisle street, Leichhardt, died in Lewisham Hospital on April 25. His mother told the court her son had "liked the taste of toothpaste" and had habitually sucked the tops of toothpaste tubes for about three years.

**Ate Tablets, Boy Dies in Hospital.**—Terry Michael Newman, Marcia street, Toongabbie, aged two years, died in Parramatta Hospital after he had eaten phenobarbital tablets. His mother found him with a small bottle of tablets. It appeared he had eaten about 12 of them, and she rushed him to Parramatta Hospital. The boy's condition was satisfactory until 11 p.m., when it suddenly declined and he died at 1 a.m. on August 12.

**Chemist "Possibly Menace."**—A 75-year-old chemist was possibly a "menace" to the public, Mr. Sargeon, S.M., said in Burwood Court on September 1. He said he doubted the man's ability to carry on his profession. The chemist, Thomas Hislop Dick, of the Boulevard, Strathfield, pleaded guilty to not keeping a proper drug record. He was fined £20 and severely reprimanded. C.I.B. Det.-Sgt. Baker said, "I have known Dick for the past 18 years, and his degeneration over the last three years has been remarkable." Police prosecutor Sgt. Hyde told Mr. Sargeon that Dick had had three convictions for offences of a similar nature. He had once sold strychnine to a woman who later committed suicide, Sgt. Hyde said.

# Brand NEW Tek

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All over Australia millions are hearing about new, tapered, sleek-handle Tek... Daily Press, Women's Weekly, National Magazines, all carry sure-fire advertising on the non-slip handle, miracle Teklon head, same low price.



Quiz Kids Programmes, and Australia's National Hit Parade, give nation-wide air coverage to the new Tek story.

Be sure to display Tek to cash in on the extra demand.

A Product of Johnson & Johnson

**FINEST  
TEKLON SUPER  
NYLON**

**NEW  
NO-SLIP GRIP**

**NEW  
SLEEK TAPERED  
HANDLE**

**1/11**

# BRAND NEW Tek JINGLE CONTEST

**OFFERS AN AUSTIN A30  
AS PRIZE! PLUS CONDITIONAL  
BONUS OF 100 GALLONS OF PETROL**

Here's news of a brand new, better than ever Contest—the Tek Jingle Contest. With its catchy tune and easy “add-the-last-line” the Tek Jingle Contest will boost Tek Toothbrush Sales higher than ever.

Just imagine a consumer contest supported by two topline radio shows—well that's what we are doing with this Tek Jingle Contest. People all over Australia will hear it every week on the Quiz Kids—broadcast over 54 stations... and on Australia's National Hit Parade—broadcast over 17 stations.

Powerful support will be given by advertisements in Women's Weekly, Woman's Day and Woman magazines plus the leading metropolitan daily newspapers. This Contest will make **your** customers buy Tek more than ever before.

**BUY TEK NOW AND BE  
READY TO MEET THIS  
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- One Dozen to attractive Display Card.
- Washes Easily.
- Dries Quickly.
- Lasts Longer.

OBTAINABLE FROM YOUR REGULAR WHOLESALER

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The advertisement for Barrier Cream features a collage of promotional materials. At the top, several cards with the heading "Beautiful Hands" are displayed, each showing an illustration of hands and the text "...EVEN WHILE YOU WORK". Below these, a large black box contains the text "For Hand Protection Always Recommend 'BARRIER' CREAM" in white, with "(REGD. TRADE NAME)" in smaller text between the words "BARRIER" and "CREAM". To the left of this box, a white box contains the text "Nationally Advertised.... Nationally Accepted...." and "BARRIER CREAM is another Wonderful FAULDING Product". In the foreground, there is a tube of Barrier Cream and a jar of Barrier Cream, both labeled "BARRIER CREAM". At the bottom, more cards are visible, including one that says "Rub in BARRIER CREAM" and another that says "BEFORE ANY KIND OF WORK".

## NEW SOUTH WALES—Continued

### COMING EVENTS: ZONE MEETINGS

A Zone meeting will be held at Tamworth on October 9.

On October 30 a meeting will be held at Griffith.

Parkes is to have a meeting on November 27.

At the meetings at Griffith and Parkes there will be a special discussion on the matter of Pharmaceutical Benefits.

**Science Group Quarterly Lecture.**—On Monday, October 24, in the Stawell Hall, 145 Macquarie street, Sydney, a lecture on the 1955 Edition of the A.P.F. will be presented by Mr. S. E. Wright, M.Sc., Dip. Pharm., A.R.I.C. A large attendance is expected.

### RESTORATION OF DRUG AUTHORITY

Advice has been received from the Under Secretary, Chief Secretary's Department, that in accordance with the provisions of Regulation 25(2) under the Police Offences (Amendment) Act, the Minister has directed that the withdrawal of the authority of **Doctor Patrick Howard Speight**, of 12 Hassall street, Parramatta, to procure and be in possession of drugs to which the Act applies for the purpose of his profession and to issue prescriptions for such drugs, shall cease to operate on and from August 19, 1955.

### CHEMICAL WORKERS END STRIKE

Striking chemical workers in N.S.W. and Victoria decided to return to work. Three thousand members of the Artificial Fertiliser and Chemical Workers' Union in N.S.W., Victoria and South Australia were on strike for 16 days.

In Sydney, a meeting of 200 workers at the Matraville works of Imperial Chemical Industries of Australia and N.Z. Ltd. decided to resume work. Victorian union members made a similar decision at Footscray.

The strike began on July 21 over claims for disability allowance and marginal increases.

After talks between employers and union representatives, a conference of Federal unions decided to recommend that the men return to work.

### GOVERNMENT BENEFICENCE

#### Tetracycline Paediatric Drops

Squibbs' brand of the above was listed as a P.B. item, although this brand was never available in Australia. Doctors prescribed Achromycin Paediatric Drops and chemists dispensed them.

The Government's attitude towards payment is illustrated by the following extract from a letter received by a pharmacist:—

"A serious view is taken of the fact that you have supplied a brand not listed as a benefit, in the substitution of Squibbs' Tetracycline Paediatric Drops. However, as Item 35, although just included in the list, was not available, and as the drug supplied was a similar preparation, on this occasion the wholesale cost of the Achromycin Paediatric Drops supplied will be paid.

"A credit of 15/- will be paid with your next account."

### SALESMAN A "DOCTOR" TO IMPRESS GIRL

A 25-year-old salesman posed as a doctor to impress a young migrant woman, Detective L. Monk told Central Court recently. He had carried the deception through, rather than lose "face."

The man, Alfred John Noar, of Station street, Pymble, was fined £30 by Mr. Gibson, S.M., on three charges of impersonating a doctor in March and April this year.

Detective Monk (Vice Squad headquarters) said Noar told a young English woman at King's Cross that he was Dr. John Williams, a graduate of Adelaide Univer-

sity, and assistant to police surgeon, Dr. Percy. Monk said Noar treated a young married woman at King's Cross for a skin complaint, and prescribed penicillin cream, which he obtained for her. He told her that if the cream did not cure her he would take her to a leading public hospital, where he was an associate of Dr. Rex Money. He also treated another woman for dermatitis and recommended lanoline cream.

### NEW REGULATION GOVERNING THE WRITING OF D.D. PRESCRIPTIONS

Regulation 17 under the P.O.A.D. Act was amended on September 23 as follows:—

"Regulation 17 is amended by omitting sub-paragraph (a) of paragraph (2) and by inserting in lieu thereof the following sub-paragraph:—

"(a) He shall write such prescription in ink and shall in his own handwriting place on such prescription—

"(i) the date on which it is written;

"(ii) the name and address of the person for whom it is given;

"(iii) the maximum number of times and the intervals at which it shall be dispensed.

and sign such prescription. The prescription shall bear the address of such Medical Practitioner or Veterinary Surgeon."

It will be noted from the above that the doctor must write the whole of the D.D. prescription in ink in his own handwriting. The doctor's address may be printed.

### MATRICULATION STANDARD

Sydney University Senate proposes to raise the matriculation standard.

By-laws providing for three compulsory matriculation subjects instead of one, as at present, have been with the Education Department for more than 12 months.

The Minister for Education (Mr. Heffron) is believed to be against the proposal, and has deferred presentation of the by-laws to the Executive Council for confirmation.

**Five Subjects.**—A Government authority said on August 30 that Mr. Heffron had no power to vary or reject the proposed by-laws, but could delay them indefinitely.

The University wants to make it compulsory for matriculation candidates to pass in English, Languages or History, and Mathematics or Science.

At present the only compulsory subject is English.

It is not proposed to vary the existing provision that five subjects must be taken for matriculation.

Mr. Heffron said today he would confer with the University Senate shortly.

Mr. Heffron's main objection is that many more teachers would be required for High Schools if three subjects instead of one were compulsory.

### PRIZES AT FINAL EXAMINATION

Hearty congratulations to the following prize winners:—

Pharmaceutical Society's Gold Medal: P. J. Muir.

Elliott Prize for Highest Aggregate: P. J. Muir.

Kodak Prize, No. 1: P. J. Muir, E. Small, aeq.

Kodak Prize, No. 2: Jean Slack-Smith.

There was no award of the McCrory Medal for Dispensing.

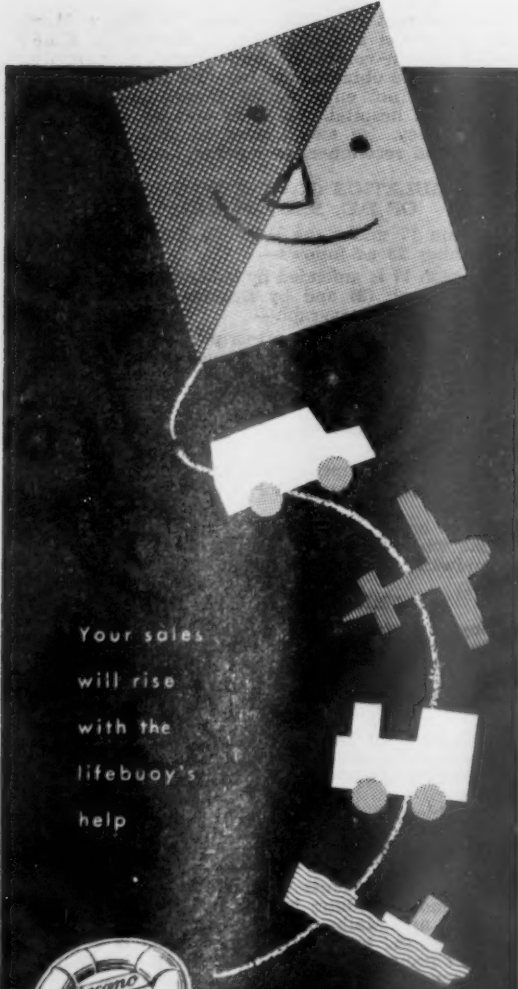
### APPRENTICE DOCTORS

Australian doctors should undergo a year's "apprenticeship" with selected general practitioners, says B.M.A. chief.


In a report in "The Medical Journal of Australia," South Australian B.M.A. President, Dr. I. B. Jose, said this scheme had been found successful at Adelaide Medical School.

The year's "apprenticeship" was a step to train a





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## NEW SOUTH WALES—Continued

student further before he was allowed to practise his art unsupervised on the public.

**Judgment.**—"In this country far too much surgery is undertaken by those who have not taken the trouble to train themselves with the very adequate opportunities that now exist," he said.

"It is not always the technical ability to operate that is lacking, so much as the judgment that comes from adequately supervised experience of when an operation is necessary and how it may best be done.

"In periods of prosperity in medicine, as well as in other walks of life, there were times when the 'ethical' was in danger of being ousted by the expedient as a norm for conduct."

### AMENDMENTS TO DRUG REGULATIONS UNDER THE POLICE OFFENCES (AMENDMENT) ACT

The following notification is published at the request of the Chief Secretary's Department:—

The Drug Regulations under the Police Offences (Amendment) Act are being amended to provide:—

- (1) That it be mandatory on all licensed and authorised persons under the drug laws to keep a drug register in the form prescribed.

Wholesalers have been keeping a variety of records which they were permitted to do because they were also kept for Customs requirements. Authorised persons, too, in certain circumstances, had not previously to keep the actual drug register prescribed, although they have had to keep all relevant details.

In the interests of uniformity the mandatory keeping of the one type of register has now been decided upon, and all wholesalers, doctors, dentists, etc., will on gazettal of the amended Regulations be required to keep such register.

- (2) That all particulars provided for in the drug register shall be entered up without delay.
- (3) That the present heading in the drug register "(One only, irrespective of strength, to page)" be substituted by "(One drug, of one trade name and one strength only, to page)."

The old heading has led to some confusion, and the new heading should clarify the matter.

As regards authorised and licensed persons using the register with the old heading, it will be in order for the use of such register to be continued, provided the amended heading is incorporated where necessary, and the particulars kept in accordance with the heading. The requirements of the law will thus be observed.

Arrangements have been made with the Government Printing Office for printing of the amended register. The Government Printer does not anticipate that stocks of the new register will be available until November next, and consequently gazettal of the amendments as referred to herein will be held over until then.

### PHARMACY BOARD OF NEW SOUTH WALES

#### Final Examination Passes

The following candidates were successful at the Pharmacy Qualifying Examination held on July 28, 1955, and subsequent days:—

Frank Attwood; Warren Francis Blomfield; Paul Guy Bohun; Ronald Walter Brady; Donald Inglis Braye; Barry John Byrne; Mary Judith Cahill; Joy Dorothy Carmichael; Eva Elizabeth Carter; Alan John Grant Colquhoun; John Michael Culhane; Gwennyth Jean Dalton; Enid Walbray Dobson; Paula Anne Duffy; Warwick Richard Dunlop; George Durr; Norman Frederick Ellis; Maxwell John Farrer; Gregory Michael Ferguson; Nicholas Michael Feros; Dorothy Latimer Fleming; John Clifford Gostelow; Patricia Gwendoline

Gould; George Dale Griffiths; Dawn Frances Grist; Robert Henry Grover; Donald Stewart Guest; Ivan John Gunning; Judith Eve Hale; Mervyn Ernest George Hammond; William John Hatch; Surrey James Noel Hibbard; Kevin Richard Hincks; Barry Mon Hughes; Terence George Irvine; Peter Ivanovsky; Janet Anne Jennens; Blodwen Rhiannon John; Ronald James Leonard Jollow; Francis John Kelaher; John Edmond Kennelly; Graham Palmer Kent; James Robertson Kibble; William David Kull; Colleen Hilda Laird; Robert Sidney Leamon; Barbara Ann Lee; Janet Pamela Lee; David Hunter Leishman; Bruce Lyons; Ross Lyons; Maureen McBride; Helen McEwan; Mark Edmond Carew McFadden; Noel Dunlop McGill; Michael Gerald McInerney; Alice Margaret McLaughlin; Bruce Read MacDougall; Diana Mary Madden; Arthur Robert Moore; Frank D'Arcy Morgan; Desmond James Mounney; Ronald Thomas Nash; Margaret Adrienne Neale; John Louis Neate; John Patrick Neylan; John Michael O'Connor; Helen Mary Frances O'Reilly; John Robert O'Sullivan; Kevin Victor Outten; Leo James Pearce; Jane Penelope Pelham; George Francis Peters; Sydney McDonald Pooley; Eva Cathryn Port; David Langley Priestley; Roy Enrico Carlo Rigotti; Lawrence Kingsford Sayer; Arthur Joseph Schwarzer; Hugh Tarlton Sefton; Kathleen Janice Shanahan; Roger Bede Smith; Mary Dell Thomas; Graham Leslie Tredinnick; Brian John Wood; Ronald Arthur Woodhill.

#### DENTISTS' FUND INQUIRIES IN PARLIAMENT

It is reported that N.S.W. Opposition members in Parliament will query administration of a political fund of thousands of pounds raised from dentists.

Several members said they had been informed the fund amounted to "about £20,000." They said a large number of dentists would welcome a public inquiry into the administration of the fund.

One member said, "It has been publicly stated that the fund was used to defeat political moves by dental mechanics to obtain registration. Many dentists feel that, in justice to their profession, the administration of the fund should be brought into the open."

Another Opposition M.L.A. said, "We have been told that a campaign by dental mechanics for registration was frustrated by that fund. We have been officially informed by Health Minister O'Sullivan that Cabinet has before it again certain submissions by the dental mechanics. For years the dental mechanics have been trying to obtain registration, and the right to deal directly with the public in making dentures. Our information is that some Macquarie street dentists, who charge 60 guineas upwards for dentures, are commercially associated with laboratories making dentures."

The M.L.A. added that the Crown Law Office had been asked by the Health Department for a ruling whether this association between dentists and laboratories was a breach of the Act. "We will press for this ruling to be given urgently," he said, "because it affects even members of the Dental Board." One leading Macquarie street dentist had recently resigned from the Dental Association over the same issue, the M.L.A. said. The dentist, Mr. Leslie Berry, had been established in Macquarie street for many years, had built his premises there in 1936, and sold them to a sharebroker several years ago for £86,000.

Mr. Berry said, "On the advice of counsel I must refuse to comment on the fund, or on financial connections between dentists and mechanics. This is an issue on which I shall shortly be called before the Dental Board."

Dentists contacted by "The Sun" newspaper said "some of these very controversial matters" would be discussed at a meeting of members of the Dental Association.

One leading dentist said, "The Press will not be admitted, but whatever happens is sure to get an airing in Parliament soon."

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## NEW SOUTH WALES—Continued

### TIME TO CHANGE THE PRESCRIPTION

A Sydney newspaper, commenting on the Commonwealth Health Service, has produced the following editorial:—

Anybody who has had any experience of the looseness and inefficiency of the Medical Benefits Scheme must welcome Sir Earle Page's promise that it is to be "tightened" during the next session of Federal Parliament.

It certainly needs tightening. As a piece of legislation, it has proved so slipshod, ambiguous and inadequate from its beginning five years ago that no one (including Sir Earle Page himself) has seemed able to give a clear explanation of its mysterious workings.

For the public, certainly, the scheme has had all the obscurity of a more than usually illegible medical prescription. No one in authority has bothered to clear up the misconceptions as to its benefits or to interpret the anomalies with which it abounds.

Last month Mr. Justice Brereton declared: "The free medicine scheme presents abundant opportunities for frauds and cheats. The regulations governing it contain few safeguards against dishonesty, principally, no doubt, because its implementation lies in the hands of doctors and chemists."

As a sufficient commentary, it should be added that the judge made these remarks during a trial in which a doctor and a chemist were convicted on charges of malpractice in connection with the issue of free medicines.

The inference, of course, is that the framers of the scheme assumed that "doctors and chemists" were of a higher moral character than ordinary mortals, and that, since they were to be entrusted with its administration, there was no need for "safeguards against dishonesty."

Unfortunately, events (such as those in Mr. Justice Brereton's court) have shown that some doctors and chemists can be just as venal or dishonest as any other members of the community.

Furthermore, Sir Earle Page, himself a doctor, has been driven to making threats of reprisal against those doctors who have taken advantage of the situation to raise their fees.

With all its foggiess and all its flaws, the Medical Benefits Scheme by this time has become part of the nation's way of life. Surely, therefore, it calls for the administration of a more vigorous Minister, who is able to place it on a logical and lucid basis.

There is no doubt that, given time and experience, it can be developed into a real national health scheme.

### 98 PER CENT. OF DOCTORS AID HEALTH PLAN

The Federal Minister for Health, Sir Earle Page, speaking at the official opening of the Australasian Medical Congress in the Sydney Town Hall on August 22, said that 98 per cent. of Australian medical practitioners had assisted the national health scheme in every way possible.

"Just over five years ago the conference of the British Commonwealth Medical Associations approved the principles and various phases of my National Health Scheme," he said.

"The basic principle in our scheme was a belief that the removal of fear of unpredictable hospital and medical costs by machinery in which the patient had a direct personal interest would lead to earlier consultation, earlier diagnosis, earlier treatment, earlier cure, and earlier return to normal work in the community."

"All phases of the scheme are operated by means of a partnership between Government, professional, and insurance organisations."

**Fewer Go To Hospitals.**—Sir Earle Page said a census in Canberra indicated that forestalling acute disease

and making home treatment available had reduced the entrants to hospital by 17 per cent. a year.

"If this reduction is general in Australia, this would mean a reduction of 170,000 patients going to hospital," he said.

"As they stay an average of 10 days, 1,700,000 bed-days are saved. At £4 a day these two items would save nearly £15 million a year."

**Foundations "Very Sound."**—The vice-president of the N.S.W. branch of the British Medical Association, Dr. H. R. R. Grieve, said the national health scheme was "based on very sound foundations."

Dr. Grieve was speaking at a luncheon given by the Constitutional Association of N.S.W. to mark the opening of the Australasian Medical Congress.

He said the scheme was based on the principle of giving the best available effective service to the people.

There was no individual who could not get, irrespective of his financial position, the best medical service the world had to offer.

**Insurance Scheme Defended.**—"As part of the scheme, and in order that no one should be unable to meet the cost of a complete medical service, we doctors started an insurance scheme of our own and it has been a tremendous success," he said.

"We have been persistently criticised because we have put away large amounts in reserve. Anyone who has had any experience in finance will tell you this is wise. After two years we have the scheme in a position where it is very strong. We are now covering for voluntary insurance nearly 60 per cent. of the whole population of Australia."

#### AMENDMENTS NOW PENDING TO THE DRUG REGULATIONS UNDER THE POLICE OFFENCES (AMENDMENT) ACT

The Chief Secretary's Department writes under date August 31, 1955—

"I am enclosing for your information a statement setting out amendments now pending to the Drug Regulations under the Police Offences (Amendment) Act.

"The amended Regulations, however, will not become effective until they are gazetted and it will be seen from the statement attached that gazettal is proposed in November next, when it is anticipated that stocks of the new register will be available.

"It would be appreciated if the proposed amendments could be publicised in your Journal."

#### Amendments Now Pending to Drug Regulations Under the Police Offences (Amendment) Act

The Drug Regulations under the Police Offences (Amendment) Act are being amended to provide—

(1) That it be mandatory on all licensed and authorised persons under the drug laws to keep a drug register in the form prescribed.

Wholesalers have been keeping a variety of records which they were permitted to do because they were also kept for Customs requirements. Authorised persons, too, in certain circumstances, had not previously to keep the actual drug register prescribed although they have had to keep all relevant details.

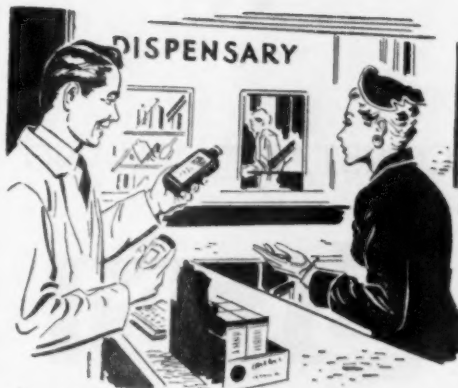
In the interests of uniformity the mandatory keeping of the one type of register has now been decided upon and all wholesalers, doctors, dentists, etc., will on gazettal of the amended Regulations be required to keep such register.

(2) That all particulars provided for in the drug register shall be entered up without delay.

(3) That the present heading in the drug register "(One only irrespective of strength, to page)" be substituted by "(One drug, of one trade name and one strength only to page)".

The old heading has led to some confusion and the new heading should clarify the matter.

As regards authorised and licensed persons using the register with the old heading, it will be in order for the use of such register to be continued, provided the



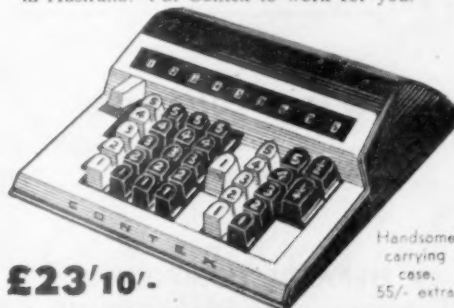
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SYDNEY, AUSTRALIA

## NEW SOUTH WALES—Continued

amended heading is incorporated where necessary and the particulars kept in accordance with the heading. The requirements of the law will thus be observed.

Arrangements have been made with the Government Printing Office for printing of the amended register. The Government Printer does not anticipate that stocks of the new register will be available until November next and, consequently, gazettal of the amendments as referred to herein will be held over until then.

The proposed new Regulation that one drug, of one trade name and one strength only be entered on a separate page will vastly increase the size of the drug register.

In New South Wales the barbiturates are classified as dangerous drugs, their variety is legion. There is a multiplicity of brands with an almost unbelievable number of variants. The proposed Regulation will cast upon chemists a tremendous amount of extra work.

### BAN ON HEROIN

A proclamation in the Government Gazette of July 29, 1955, reads as follows:—

Part VIA of the Police Offences Amendment (Drugs) Act 1954 reads:—

Diamorphine (Heroin) and other Prohibited Drugs.

20c (1) In this section "diamorphine" includes its salts and any preparation, admixture, extract or other substance containing any proportion of diamorphine.

(2) If any person—

(a) manufactures, prepares, sells, distributes, supplies or otherwise deals in diamorphine;

(b) has in his possession any diamorphine or

(c) uses diamorphine,

he shall be guilty of an offence against this Part of this Act.

Any diamorphine in the order or disposition of any person shall be deemed to be in his possession.

### Newspaper Publicity

The proclamation has been attended with considerable press publicity. In an article "The Sydney Morning Herald" states that so far only New South Wales has put any anti-heroin legislation into force in Australia.

Basically the U.N. Organisation was trying to stop the demoralisation and human tragedies which follow addiction to heroin by stamping it out of existence. The writer of the article states that in the United Kingdom and in Australia many doctors have become alarmed at the literal carrying out of the U.N. request and the subsequent denial of heroin for medical purposes.

It is pointed out that as a pain killer heroin is used mostly to bring relief to patients suffering the final stages of incurable malignant disease.

A correspondent in the S.M.H. writes: "The ban will result in bootleg stuff of inferior and dangerous quality being made and sold, and will prevent the legitimate use of many genuine sufferers who can find no suitable drug to replace it."

In contradistinction another correspondent writes: "In our student days we read (and still do read) in Hale White's 'Materia Medica' of heroin:

It is more dangerous than morphine. ... Convulsions may be produced instead of sleep. ... Addiction is common. ... Alarming symptoms of respiratory paralysis may occur after therapeutic doses. Papanavertum is much safer and usually equally efficacious."

In an article in "The Medical Journal of Australia," September 3, 1955, Dr. Z. Freeman, of Macquarie street, says:

"Most practitioners would agree that 30 per cent. to 40 per cent. of patients given morphine have vomiting and prostration following its use, and in the case of a

shocked patient with myocardial infarction the prognosis must surely be worsened. Substitutes for morphine such as 'Amidone' and 'Pethidine' are just as bad in this respect or are ineffective. Methylmorphinan ('Dromoran') is effective, but is a restricted drug in the National Health Scheme, and also causes vomiting occasionally.

"Although the evils of heroin addiction are great, I feel we should be given proof that as a profession we are not to be entrusted with its use. It would seem that the banning of heroin is an expedient originating in the higher echelons of administrative medicine rather than a necessity urged on by abuse of the drug at a practitioner level, and as one who has found the drug a valuable 'second string' I register my protest against its prohibition."

#### N.S.W. HOSPITAL CHARGES TO RISE 50 PER CENT.

Following the announcement of the increase, certain comments appeared in the Press. From "The Sydney Morning Herald" we reprint the following—

"Sir—Subscribers to the Hospitals Contribution Fund of N.S.W. must be disquieted by the disclosure that the profits of this supposedly mutual fund have been paid to hospitals direct.

"If this had not been done, the fund could now benefit its members by dispensing with any qualifying period in respect of transfers to a higher table.

"Generally, one feels that such organisations should see that their annual trading results are widely publicised. It is essential for their stability to hold the public's confidence."

PETER NELSON, Artarmon.

"Sir—I was interested to read of the disposal of surplus funds by the Hospitals Contribution Fund, especially as this week I was informed by them that a claim for my baby's treatment in a mothercraft hospital would not be allowed.

"The claims manager referred me to Clause 12 of their regulations, which reads: '... admission to Tresillian, Karitane and similar establishments shall be excluded from benefits except for the illness of the child for whom hospital treatment is essential.'

"As the baby was experiencing great difficulty with his feeding, my doctor advised me to go to the mothercraft home on discharge from the maternity hospital. The child continued to lose weight and refuse food, and was far from being a 'well' child, and almost a fortnight's treatment was necessary before his discharge.

"My application for benefits was supported by a doctor's certificate and a report from the matron of the mothercraft home, but the contribution fund does not classify failure to thrive as an illness, despite the importance attached to this condition by the medical profession.

"This was my first claim in 13 years."

CONTRIBUTOR, Randwick.

Hospital accommodation fees in N.S.W. will be increased by 50 per cent. soon. State Cabinet decided on the increases, but made no announcement and fixed no date for the new rates to begin.

On a recommendation by the Minister for Health (Mr. O'Sullivan) Cabinet agreed to increase public ward charges from £8/8/- to £12/12/- a week.

Intermediate patients will be required to pay £18/18/- instead of £12/12/-, and private ward patients will be charged £25/4/- compared with £16/16/- at present.

The charge for outpatients will rise from 7/6 to 10/- a visit.

Cabinet considered a report from the Hospitals Commission, outlining reasons for the increases.

The Hospitals Commission report showed that subsidies to public hospitals paid by the Government in the last financial year totalled almost £14,500,000.

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## NEW SOUTH WALES—Continued

It was estimated that without any increases in patients' fees £17 million would be required this year.

The report said that in 1953-54 the over-all cost per public hospital bed was £24 a week.

**Benefit Fund.**—Under the new rates, the highest table of the fund, £16/16/-, would not cover intermediate patients.

Weekly subscriptions to the Hospitals Contribution Fund covering a man and each member of his family, range from 6d. to 3/-.

The following benefits are paid:

6d. a week—Fund £2/2/-; Commonwealth Benefit, £4/4/-.

1/- a week—Fund £4/4/-; Commonwealth Benefit, £4/4/-.

2/- a week—Fund £8/8/-; Commonwealth Benefit, £4/4/-.

3/- a week—Fund £12/12/-; Commonwealth Benefit, £4/4/-.

Benefits are paid for a total of 84 days.

## N.S.W. STATE BRANCH COMMITTEE ENTERTAINS LEADERS IN DRUG TRADE

On September 14 at 7 p.m. at Ushers Metropolitan Hotel, Castlereagh street, Sydney, the President and members of the Committee of Management of the N.S.W. Branch of the Guild entertained the leaders of the drug trade at dinner.

There were present: Messrs. J. Langley (Colgate-Palmolive Pty. Ltd.), R. B. Crawford (Johnson & Johnson Pty. Ltd.), Clive Catt (D.H.A. (N.S.W.) Pty. Ltd.), L. T. Edwards (Abbott Laboratories Pty. Ltd.), Theo White (Parke, Davis & Co. Ltd.), W. B. Howard (Warner-Hudnut Pty. Ltd.), S. P. Ahearn (The British Drug Houses (Aust. Pty.) Ltd.), Dr. Brian Oxenham (Bristol-Myers Co. Pty. Ltd.), N. F. Leggatt (Frederick Stearns & Co.), W. J. Harman (Reckitt & Colman (Aust.) Ltd.), R. J. Mitchell (Kodak (A'sia) Pty. Ltd.), G. P. Curnow (Allen & Hanburys (A'sia) Ltd.), G. G. Hunt (Glaxo Laboratories (Aust.) Pty. Ltd.), K. H. Powell (Vice-President, Pharmaceutical Society of N.S.W.), P. A. Smith (Burroughs Wellcome & Co. (Aust.) Ltd.), J. L. Miers (Nicholas Pty. Ltd.), R. E. Gostelow (The Wholesale Drug Co. Ltd.), W. F. Scammell (F. H. Faulding & Co. Ltd.), H. J. R. Gamble (May & Baker (Aust.) Pty. Ltd.), G. Bligh-Jones (National Brush Co. (Aust.) Ltd.), J. McGloin (J. McGloin Pty. Ltd.), G. Noble (Edinburgh Laboratories), H. D. B. Cox (P.A.T.A.), D. W. J. Buchanan (Consolidated Press Ltd.), G. Stokes ("Family Circle"), B. Sutherland (Wyeth Incorporated).

Messrs. L. W. Smith (President, F.P.S. Guild of Australia, N.S.W. Branch), W. F. Pinerua (Treasurer, F.P.S. Guild of Australia, N.S.W. Branch), R. W. Feller (Chairman, Trade & Commerce Sub-Committee), K. E. Thomas (Chairman, Pricing Sub-Committee), W. G. Sapsford (Chairman, Repatriation Lodge & Hospital Dispensing Sub-Committee), R. S. Leece, C. D. Bradford, J. N. Young, R. L. Frew, A. E. Conolly (Secretary, F.P.S. Guild of Australia, N.S.W. Branch) and Wm. Coad.

The loyal toast was honoured.

The toastmaster, Mr. R. W. Feller, then called on the President, Mr. Leslie Smith, to propose the most important toast of the evening—"Our Guests."

Rising with characteristic alacrity, Mr. Smith plunged "in medias res"—

"Gentlemen, in proposing your health, I do so with very great pleasure, on behalf of the State Branch Committee and on my own behalf. There is no need to reiterate what I have said on previous occasions, but I would like to add that on this occasion I am more convinced than ever that nothing but good can come from these gatherings. The pattern is worldwide, even in the Kremlin, where agreement was

reached recently, on certain points, between the Russians and the Germans.

As sensible individuals we realise we must experience differences in such a progressive field as the drug trade. Where differences exist they cannot be ironed out over the telephone. What you need is a face-to-face conversation with those concerned. Over the years that policy has paid dividends in New South Wales.

The remarks I now make are cogent and I think very pertinent.

Up to say 1950, our respective paths ran parallel—since **they have become intertwined**. They will remain so. I make reference to manufacturers, wholesalers and agents participating under the National Health Service legislation.

In association with Mr. Pinerua and the Secretary, I was instrumental in getting the ethical manufacturers together, a short time ago. We moved along to more ambitious thoughts, and invited over Mr. Scott and Mr. Attiwill. Unfortunately, in my opinion, the proposal to form an Australia-wide ethical association collapsed. I am now informed that 14 days ago an Australian Ethical Manufacturers Association was set up, and a public relations officer appointed.

I suggest the new group make immediate contact with the Federal Guild.

I know sufficient about the drug trade to tell you your problems will not be corrected overnight.

I repeat that nothing but good can come from close liaison between us. Neither of us can afford to play a lone hand; I see that clearly. Once your margins are chiselled we at once suffer after you. I implore you to get into action, resolve your own difficulties, and march side by side with us.

In the past we have all been disposed to look on the public servant as a man who got into a cosy job suited to his mediocre talents. That is an erroneous idea; do not suppose that the people employed by the Federal Government are not endowed with all the knowledge and ability to make them no mean adversaries. If we go forward divided we will suffer. I put it clearly to you.

I have only one other point. I appeal to all wholesalers, manufacturers and agents to give us more assistance with regard to our pricing Bulletin. I ask you to advise us straight away of the new lines, deletions, price movements and changes which take place. We can only improve our pricing service with your co-operation.

You would be well advised to consult us prior to launching a new line. If we commenced with agreement on a price structure, and if the line is a good one, it should survive.

I say here that we have got our feet on the ground, we know and appreciate your points of view. All we ask is justice for yourselves, the consumers and ourselves." Applause.

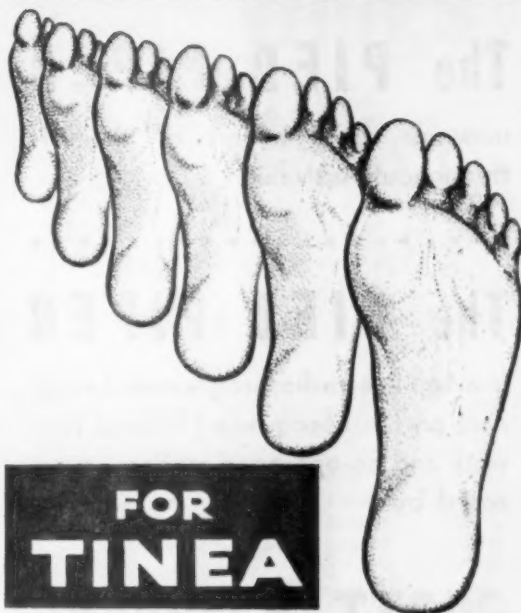
The toastmaster then called on Mr. Pinerua to support Mr. Smith's remarks.

Mr. Pinerua said: "It gives me a lot of pleasure to support Mr. Smith's observations. He has made some very cogent remarks on things generally. I concur with my President; they are my ideas also. We welcome you tonight as friends. It has always been the desire here in N.S.W. to make real friends of the people who supply to us our life blood. Differences disappear when our paths become intertwined. It is necessary for you to realise that your paths lie along our paths. In N.S.W. we like to have your assistance, we appreciate your help.

In N.S.W. one-third of the entire business of the Commonwealth is done. It has one-third of the Guild membership and one-third of the population. We must be regarded as an entity in the Commonwealth.

I would like to refer to an important development in Guild affairs which took place during the last 12 months. The introduction of the "Family Circle" magazine which you will be able to purchase on November 1.

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## NEW SOUTH WALES—Continued

I feel sure that you have all been approached to support this concept which is now a fact. I hope you have as much faith in it as I have. It is the greatest idea which has hit the pharmacy trade. I hope that nobody feels coerced into it. It has been said that people were forced to come into it. The "Family Circle" will give pharmacy a voice which it never had before. The chemist will no longer be referred to as the 'robbing so and so around the corner.'

In welcoming you, in giving you welcome, I trust that we will enjoy further gatherings such as this. I now pass the toast back to Mr. Smith to formally propose."

The toast to "Our Guests" was then drunk with musical honours.

The toastmaster said: "In organising this function we came to a minor crisis, who should respond to the toast to "Our Guests." With such a bevy of talent available, it was most difficult to select the person to respond. However, we found in Reg Gostelow a dual personality. He was Chairman of the Drug Group, so the solution presented itself, and I now call on Mr. Gostelow to respond to the toast."

Mr. Gostelow said: "I thought there must have been a good reason for selecting me apart from oratory. It occurs to me that the Guild has done a good job tonight. In this gathering there is such a bevy of talent and all interests represented. From all fields the whole trade is well represented. The guests are pleased to partake of the Guild's hospitality; the boot is usually on the other foot. The manufacturer or wholesaler, in opening a factory or extending his premises, entertains the Guild members.

Mr. Smith mentioned a change from 1950, but we have always been knit together; we can only exist together. Mr. Smith referred to meeting more often. I suggested some time ago that we should meet more often, in conference, on matters affecting the trade as a whole. The Guild has gone a long way since I joined it as Secretary to the State Branch Committee in 1933. Pop Davies was then on the Committee, also Loris Ingamells, G. Jewkes. These men set solid foundations for the Guild. Of the men who founded the Guild, only three are left today: Mr. Leslie Smith, who has not changed his outlook or his vocabulary; Mr. Keith Thomas, still interested in figure work; and Mr. Orion Leggo, who is unfortunately not here tonight. Eric Scott, in the Federal Guild, is the only one who was there ten years ago. Mr. McGibbony is retired, and Cec. Retallick is dead. So in the retail organisations you have a changing personnel. However, manufacturers go on for ever; they are harder in the head. The older men in the Guild must instil their enthusiasm in the younger men. The ramifications of Guild work are enormous." (Applause.)

The toastmaster then called on Mr. Theo White to support the response.

Mr. White said: "I must agree with Mr. Feller about there being a bevy of talent present when I look round this family circle."

Mr. White was interrupted by loud laughter and cries of "plug," "plug."

Mr. White continued: "I congratulate the Guild on putting on this wonderful function. It enables us to get to know each other better. I have noticed quite a number of deals going through in various corners of the room." (Laughter.)

"In the absence of the President of our new Association, I would like to say that, following a meeting with you some 12 months ago, it was decided to form an ethical association of an Australia-wide nature. We have branches at present in N.S.W., Victoria and South Australia. Mr. George Scammell is the Federal President. Our Public Relations Officer is presenting our Articles to the Health Departments.

I would like to tell you that we are not sitting still; we are closing our ranks with our paths entwined. Thank you, and I congratulate the Guild on a successful evening." (Applause.)

This concluded formal proceedings. However, the distinguished gathering of men lingered for quite a while in animated conversation the one with the other.

## PHARMACEUTICAL SOCIETY

### Council Meeting

The Pharmaceutical Society of New South Wales met at Science House, 157 Gloucester street, Sydney, on August 2, at 7.45 p.m.

**Present.**—Messrs. B. G. Fegent (Chairman), E. G. Hall, K. A. Cartwright, S. E. Wright, J. F. Plunkett, A. F. Winterton, A. W. West, H. W. Read, W. R. Cutler, J. L. Townley and K. H. Powell.

**Unveiling of Honour Board.**—Mr. Fegent said that the ceremony had been performed on July 21 by Mr. Ingamells. Most of those invited had been present. Mr. Wright said it had been an appropriate type of ceremony.

**Special General Meeting — Stawell Hall, September 27.**—It was mentioned that the items to be discussed at the Special General Meeting were—

1. Alterations to the Articles of Association.
2. Amendment to the Standards of Professional Conduct.

**Special Meeting of Council, August 8.**—It was mentioned that the Guide for Professional Conduct would be discussed; also the legislative committee's recommendations for amendment to the Articles of Association.

**Science Group, Three-Monthly Lecture.**—Mr. Fegent said that Dr. Adrian Johnson had delivered a lecture in the Stawell Hall on July 26 as arranged.

It was decided to send a letter of thanks to Dr. Johnson.

Mr. Cutler said there should be a limit on questions.

Mr. Fegent said that Dr. Johnson had agreed to deliver a lecture at Newcastle on September 21. It was decided that Mr. Fegent should ascertain the subject to be taken by the doctor for his lecture at Newcastle.

**Next Lecture.**—It was decided that the next quarterly lecture should be delivered on October 24 in the Stawell Hall—a lecture on the 1955 A.P.F. by Mr. S. E. Wright.

It was decided to give publicity to the lecture in "The Medical Journal of Australia," inviting the doctors to attend the lecture.

It was also decided to write to the Medical Superintendents of Hospitals asking that the residents be given the opportunity to attend.

**First-Year Apprentices' Examination, Great Hall, University of Sydney, August 29.**

**Zone Meeting at Lismore, July 17.**—Mr. Fegent and Mr. Conolly reported on the zone meeting.

Mr. Fegent said that meetings would be held at Gosford, Newcastle, Griffith, Parkes and Tamworth.

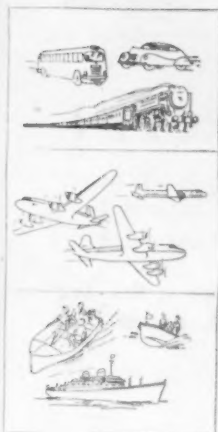
**Display at Medical Exhibition, August 20-27.**—Mr. Fegent said that Mr. Attiwill had visited Sydney, where he interviewed two members of the Executive. A copy of his report of the matters discussed had been sent to all the Societies and to the P.A.A.

At this point, the secretary read Mr. Attiwill's report.

Mr. Fegent said he was required at Melbourne the following day to discuss exhibition of the A.P.F. He had contacted Dr. Hastings Willis, who said that papers to be delivered had all been arranged. Dr. Hastings Willis suggested contacting the booksellers. Angus and Robertson could put on their stand a display of A.P.Fs.

Mr. Hall said that time was available for a paper on the A.P.F. He suggested that Dr. John Hunter be contacted on August 3.

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## NEW SOUTH WALES—Continued

It was decided that Mr. Fegent should go to Melbourne for a meeting on August 3 to discuss exhibition of the A.P.F. at the Medical Exhibition at Sydney.

**Federal Council of Pharmaceutical Societies of Australia.**—Mr. Cutler reported on this matter and explained a number of points.

**New Members Elected.**—Messrs. Harry Samuel Hertz, William Arthur Twitchett, John Henderson Murray.

**Advanced to Full Membership.**—Colin George Fisher.

**Correspondence.**—Chief Secretary's Department, advising that the ban on Heroin (Diamorphine) will become effective as from October 1, 1955. The destruction of Heroin stocks is being left to individual holders, who should endorse their records as to the date on which such stocks were destroyed.

It was decided that an interview should be sought with the Chief Secretary concerning the proposed destruction of Heroin.

Pharmaceutical Association, acknowledging receipt of Society's suggestion that a paper be read at the forthcoming Medical Congress concerning the A.P.F. Advising that publication of the A.P.F. has been geared to have the books off the machines by July 31 and that any alterations to the publication would present difficulties. Noted.

Public Relations Secretariat, asking if the Society requires further information about the Proprietary Medicines Register under the Victorian Health (Proprietary Medicines) Act 1953. Received.

The Australasian Pharmaceutical Publishing Co. Ltd. —Thirty-sixth Annual Meeting—Notice to Members.—It was stated that Mr. J. L. Townley would give a proxy in favour of Mr. Smith.

Mr. G. Tauro, Honorary Treasurer, National Union of Pharmaceutical Students of Australia, enclosing copy of the N.U.P.S.A. Constitution. Received.

S.U.P.A., to Mr. Fegent, advising that the next committee meeting of the S.U.P.A. would be held on August 11. The matter of arrangements for the N.U.P.S.A. Congress in January, 1956, would be discussed.

It was decided that Mr. Fegent and Mr. Powell should attend to hear the proposals made at the meeting.

**Presentation of Registration Certificates.**—It was decided to write to Mr. Cosgrave, asking him to suggest a date for the next presentation of registration certificates.

The meeting terminated at 11 p.m.

## SPECIAL MEETING OF THE COUNCIL—8/8/55

**Present.**—Messrs. B. G. Fegent (Chairman), E. G. Hall, K. A. Cartwright, J. L. Townley, A. W. West, H. W. Read, J. F. Plunkett, K. H. Powell, A. F. Winterton, W. R. Cutler and G. G. Benjamin.

**Discussion of Guide for Professional Conduct by Pharmaceutical Chemists.**—The Guide was discussed at length and it was finally decided that it should be amended so as to read as follows—

"The primary obligation of a pharmacist is to supervise and control the procurement, preparation, storage and distribution of drugs, medical supplies and poisonous substances to ensure maximum safety, efficiency and economy in the public interest.

"The practice of pharmacy requires knowledge, skill and integrity; therefore the State laws restrict its practice to persons with special training and qualifications.

"Each pharmacist must not only play his part in giving an efficient, reliable and adequate service, but also avoid acting in any way which will impair confidence in and respect for pharmacists as a body.



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## NEW SOUTH WALES—Continued

### The Pharmacist and His Relations to the Public

"1. In every pharmacy the public is entitled to expect a polite, honest and efficient service; that all goods shall be true to label and as otherwise represented, and that all contracts shall be faithfully executed, and shall at all times endeavour to protect the public from the improper use of drugs.

"2. The pharmacist shall maintain a high standard of technical knowledge and skill.

"3. Both the external and internal appearance of the pharmacy should be dignified and reflect the professional character of Pharmacy.

"4. The pharmacist shall conform to the law in regard to his legal duties under Pharmacy, National Health, Food and Drug, Dangerous Drug and Poison legislation and such other enactments which affect the profession.

### The Pharmacist and His Relation to Kindred and Allied Professions

"5. The pharmacist shall maintain and promote cordial and useful relationships with members of kindred and allied professions.

"6. The pharmacist shall not substitute articles or ingredients in a prescription except in cases of obvious error or in an emergency. The authority of the prescriber shall be obtained wherever possible.

"7. The pharmacist shall not be a party to the giving or receiving of cypher prescriptions or commissions nor to the obtaining of preferential recommendation in respect to the dispensing of prescriptions.

### The Pharmacist and His Relation to Fellow Pharmacists

"8. The term 'consulting chemist' or any other term which may be construed to mean that a medical consulting service is available, shall not be used.

"9. The pharmacist shall be willing to co-operate with his colleagues in all matters affecting the welfare of pharmacy, and to assist them with information or advice.

"10. A pharmacist shall do nothing to cast doubt upon the ability or integrity of his fellow pharmacists.

"11. The pharmacist shall comply with any special ruling of the Council of the Pharmaceutical Society of N.S.W. to protect the professional standards and reputation of the practice of pharmacy."

It was decided to circulate the amended Guide to Councillors in order that they might vote on the question as to whether the headings in the Guide should be retained or not.

Mr. R. T. Waters, of 152 Homer street, Earlwood, wrote suggesting that the Guide should contain a further clause reading—

"Pharmacists should abstain from co-operation — through the sale of abortifacients and contraceptive devices or drugs — with such immoral practices as abortion and contraception."

After discussion, it was decided not to incorporate the suggested clause.

**Amendment to Articles of Association.**—It was decided to present the proposed amendments to solicitor George Williams for perusal and drafting.

The meeting rose at 10.50 p.m.

### SEPTEMBER MEETING OF THE COUNCIL

The Council of the Pharmaceutical Society of New South Wales met at Science House, 157 Gloucester street, Sydney, on September 6, at 7.45 p.m.

**Present.**—Messrs. B. G. Fegent (Chairman), E. G. Hall, K. A. Cartwright, S. E. Wright, J. L. Townley, A. F. Winterton, W. R. Cutler, G. G. Benjamin, K. H. Powell, A. W. West and H. W. Read.

**Welcome to New Zealand Visitors.**—Mr. Fegent welcomed to the meeting Mr. Noel Wilson, President of the New Zealand Service Guild of New Zealand, and also Mr. Joe Peel, an examiner in New Zealand, and a hospital pharmacist from Napier. He extended to both a hearty welcome and invited them to enter upon discussion of any item upon the agenda.

Mr. Wilson and Mr. Peel said they were honoured to be invited to the meeting. They had been overwhelmed with hospitality since reaching Australia.

### Special General Meeting, September 27—

**1. Alteration to Articles of Association.**—The secretary said that Solicitor George Williams had not yet provided his comments in connection with the proposed alterations.

It was decided to contact Mr. Williams, asking him to expedite the return of the proposed amendments, together with his comments.

**2. Amendments to Standards of Professional Conduct.**—It was decided that at the Special General Meeting, recommendations only would be accepted, that is, recommendations that the Council make alterations in the present standards.

It was decided to retain headings in the printed list of standards.

It was further decided to insert the words "the pharmacist" after the word "and" in paragraph No. 1 of the Standards of Professional Conduct in the second last line.

### Science Group Lectures—

**Newcastle—Dr. Adrian Johnson—September 21.**—It was stated that Mr. Winterton would accompany Dr. Johnson to Newcastle.

**Stawell Hall—Mr. S. E. Wright—October 24.**—Mr. Wright said the altered date was suitable for his lecture on the "A.P.F."

Mr. Hall said the B.M.A. was attracted to the idea of inviting the Resident Medical Officers to the lecture.

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## NEW SOUTH WALES—Continued

**First-Year Apprentices' Examination, August 29.**—Mr. Hall said that the papers so far marked were satisfactory. One hundred and eighty-five candidates had presented themselves for examination. The Great Hall was full. The papers would be marked by the November meeting of Council.

Copies of the lectures and the examination papers were handed to the New Zealand visitors, who regarded the Society's activity in this connection as excellent.

Mr. Benjamin complimented the examiners on the papers, which were searching.

**Display of A.P.F. 1955 at Medical Congress.**—Mr. Fegent said that Mr. Burton had been sent to Sydney to assist in the presentation of the new A.P.F. at the Medical Congress. Certain samples were prepared in Melbourne and sent over.

Before proceeding to Melbourne, Mr. Fegent said he had seen Dr. Hunter, of the B.M.A. Also I.C.I. had agreed to provide the Society with table space, etc., for the exhibition of the A.P.F.

Mr. Read then read his report of the display at congress.

A separate stall had been finally secured. Samples had been prepared by Faulding's at short notice. This company was very co-operative.

Mr. Fegent complimented Mr. Read and Mr. Burton on the excellent job they had done.

Mr. West and the secretary also referred to the great amount of work carried out by Mr. Read, which ensured the success of the exhibition.

It was decided to write and thank F. H. Faulding & Co. Ltd. for its part and its magnificent co-operation. It was also decided to write and thank the Victorian Society for making available the services of Mr. Burton, and also to comment on the great job performed by him.

It was resolved to forward a letter of congratulations to the Pharmaceutical Association of Australia on the new A.P.F., which was a fine production.

It was further resolved to thank Dr. Hunter for making space available at the exhibition.

**Brochures on A.P.F.**—Mr. Fegent said that the P.A.A. suggested that a copy of the brochure be sent to every doctor on the register in New South Wales by the Society.

It was decided to write to the B.M.A. to inquire if it could assist in the distribution of the brochures.

**A.P.F. Samples.**—It was decided to take these samples to the Stawell Hall for a display on the night of the presentation of registration certificates.

**A.N.Z.A.A.S. Meeting—Melbourne.**—Mr. Fegent said the standard of papers was high. The students the Society sponsored did a remarkably good job and were a credit to the University—the Department of Pharmacy. He complimented Mr. Wright on the able manner in which he had conducted the meeting.

Mr. Cutler endorsed these remarks, adding that it was the best meeting of Section "O" which he had attended. Mr. Wright had made a marvellous job of the discussion. The paper by Barry Brown was excellent. Congratulations were due in a large manner to Mr. Wright.

Mr. Fegent said that Mr. L. W. Smith had expressed the desire that his congratulations be conveyed to the Society on its sponsorship of students to deliver papers at Section "O" meeting at Melbourne.

Mr. Peel said he had been very impressed at Melbourne. There had been a strong team from Sydney. Seventeen persons from Pharmacy and Pharmacology had attended.

Mr. Wilson also added his encomiums.

Mr. Wright thanked the meeting for its complimentary remarks. The Victorian Committee had done a good job. The idea that Section "O" was too academic had been debunked.

Mr. Wright said he did not think there would be anything further heard of the suggestion that a scientific section be included as part of the P.A.A. Conference. He suggested that Section "O" should be held concurrently with meetings of the P.A.A. Symposia should be included conducted by people well acquainted with the subject. One or two papers from the manufacturing firms were very good, Alan Stahel's paper on "Insulin" being an example.

Mr. Hall said he was pleased to hear Mr. Wright state that the "too scientific" idea had been wiped out. The Society should adopt sponsorship as a principle.

Mr. Fegent then referred to the Ministry of Health's report on Hospital Pharmaceutical Service in Great Britain. It recommended that dispensing assistants be created with a diploma for dispensing in hospitals. This could assist the setting up of medical centres.

It was decided to obtain copies of the report from Her Majesty's Stationery Office, as soon as possible.

Mr. Fegent asked Mr. Peel to give his views on the hospital side.

Mr. Peel said there should be close co-operation between hospital pharmacists and those in retail. Their duties differed considerably. The hospital pharmacist required more knowledge of sterile and aseptic technique. The retail man and the hospital pharmacist were getting farther apart and something should be done to establish a closer liaison. The hospital pharmacist had to know what drugs were for, their action; and he needed knowledge of hospital administration. In addition, he was expected to lecture to the nurses. Post-graduate work was needed and the Society should link up with the hospital pharmacist so there would not be so wide a gap between hospital pharmacists and those in retail pharmacy.

Mr. Fegent suggested that this would be covered in the new course when it came into operation.

Mr. Wright said he had talked with Mr. McCulloch, president of the defunct Hospital Pharmacists' Society. The chief gap was that in the salary.

It was resolved, at the suggestion of Mr. Cutler, to thank the organising committee in Melbourne and also the ladies' committee for their excellent work in relation to the organisation of Section "O."

**Heroin Ban, October 1, 1955.—Destruction.**—Mr. Fegent and the Secretary reported on their interview with Messrs. Buttsworth, Kingsmill and Lake at the Chief Secretary's Department on August 9.

No reply had been received from the Department concerning the method of destruction or the Society's suggestion that stocks of the drug on hand should be sent to Sydney to the Department for destruction under supervision.

It was decided to publish the letter sent in by the Chief Secretary's Department, adding that Heroin should be destroyed by pouring it down the sink in the presence of witnesses prior to October 1, 1955.

**Presentation of Registration Certificates.**—Mr. Fegent said that the date had been altered to Wednesday, October 12. The nephew of the Minister for Health had qualified. It was decided to adopt the same procedure as before and to ask the Minister for Health, Mr. O'Sullivan, to present the certificates, also the examination prizes, which had been awarded as follows:

Pharmaceutical Society's Gold Medal—P. J. Muir.  
Elliott Prize for Highest Aggregate—P. J. Muir.  
Kodak Prize No. 1—P. J. Muir, E. Small, aeq.  
Kodak Prize No. 2—Jean Slack-Smith.  
(The McCrory Medal for Dispensing was not awarded.)

### Zone Meetings—

**Gosford, September 17; Newcastle, September 18.** Mr. Fegent said he would attend.

**Tamworth, October 10.**—Mr. Powell to attend.

**Griffith, October 30.**—It was not decided who should attend to represent the Society.

**Parkes, November 27.**—Mr. Fegent said he would attend.



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## NEW SOUTH WALES—Continued

**New Members Elected.**—Messrs. Maxwell Arthur Godbold, John David Henderson, Maurice Hill, Alan John Robert Macpherson, Roger Bede Smith.

**Correspondence.**—Mr. F. J. McNamara, West Wyalong, asking for copy of Constitution and Rules of the Society; copy of the Code of Ethics circulated some months ago; copy of the Form of Admission to be signed by prospective members of the Society. Received.

Mr. S. E. Wright, conveying the thanks of the recipients of subsidies to the Council of the Society.

To Registrar, the Pharmacy Board of N.S.W., advising it has been decided to hold the presentation of registration certificates in the Stawell Hall on September 26. Mr. Cosgrave to be advised of the altered date—Wednesday, October 12.

Chief Secretary's Department, advising that Dr. Speight is permitted to be in possession of drugs from August 19. (Drug Authority restored.)

Mr. C. Dalglish, Rose Bay, thanking the Society for a most comprehensive and useful series of lectures for first-year students.

Mr. G. H. Bruce, Honorary Secretary, R.S.S.A.I.L.A., conveying the appreciation of the Executive of the Sub-Branch to the Society in respect of the unveiling of the Honour Roll.

Pharmaceutical Association (1), advising that Mrs. Manning has received a letter from the British Pharmacopoeia Commission, enclosing copy of a Supplementary List of Approved Names; and (2) advising that the date of operation of the eighth edition of the A.P.F. is October 1, 1955.

It was resolved to publicise the fact that the eighth edition of the A.P.F. comes into force on October 1 and also to publish this fact in the M.J.A.

Mr. D. Scott, Honorary Secretary, N.H.V.P.A., advising that a meeting has been arranged for September 21, to hear the lecture by Dr. A. Johnson.

Dr. Adrian Johnson wrote: "I think we could call the Newcastle lecture 'An Illustrated Survey of Skin Problems'." Noted.

Under Secretary, Chief Secretary's Department, asking if proposed amendments to the Drug Regulations under the Police Offences (Amendment) Act could be published in the Journal.

The Secretary said that in future a separate page of the drug register would need to be used for separate strengths and those with different trade names. Noted.

**Pharmaceutical Association Conference, 1956.**—Mr. Hall said that the dates suggested for the Conference were May 22 to 30, 1956. The Conference would probably be held during this period.

Mr. Fegent thanked the two New Zealand visitors for attending the meeting, and wished them a safe return to New Zealand.

Mr. Wilson and Mr. Peel said they had experienced a pleasant evening.

The meeting terminated at 11.6 p.m.

### THE GUILD

### Annual Meeting

The 27th Annual General Meeting of members of the Federated Pharmaceutical Service Guild of Australia (New South Wales Branch) was held at "Science House," 157 Gloucester street, Sydney, on August 31, 1955, at 8 p.m.

**Chairman.**—Mr. Leslie W. Smith, State President, occupied the Chair.

**Notice Convening the Meeting.**—Resolved that the Notice convening the meeting be taken as read.

Apologies were received from 10 members.

Mr. K. Attiwill sent a telegram reading: "Greetings and good wishes for future prosperity for continued success and expansion your Branch."

**Annual Report, Balance Sheet and Accounts.**—Mr. Smith said he felt he should elaborate on the matter of the Kleenex dispute mentioned on page 3 of the report. The settlement was resolved by the Federal Executive.

Objections to the slash in the profit margins were first made by New South Wales, and later the conduct of the campaign against Australian Cellucotton Products was taken over by Mr. R. G. Ross, the Federal Merchandising Manager.

Mr. Segal inquired if there was a representative on the Federal Executive from New South Wales.

Mr. Smith: "No. The Federal Executive is Mr. Eric Scott, Mr. Martin (Qld.) and Mr. Cotterell (S.A.)."

Mr. Smith said that there was a weak poll on the matter of agencies for the Hospital Contribution Fund and the Medical Benefits Fund. It was obvious that the pharmacists of New South Wales did not want to give up their agencies.

Mr. Smith said he was sure that the Guild would not succeed in getting extra commission. The Funds were in a strong position. We had indisputable evidence that Guild members would not surrender their franchise. So the best we could do was to attempt to secure a simplification of procedure in collecting and recording contributions.

Excellent suggestions had been made by a new member of the State Branch Committee, Mr. R. L. Frew, and others who wrote in.

"We have done all we could. We have been there countless times. The members want their agencies. For those who do not, the matter is left in their hands. If we took a compulsory poll, it would be strongly for continuance," said Mr. Smith.

"I would like to mention the dispensing of P.B. scripts in public hospitals. The Hospitals Commission and ourselves got along quite all right, but there is a Determination under Section 99 which prevents P.B. scripts from being given out in respect of public ward patients.

"At a Federal Council Meeting, as your delegate, I tried to get Section 99 annulled, and to make it more like Section 32, which is good enough for the doctors. Section 99 is absolutely vicious. It is iniquitous—the Minister can make a Determination which would affect all of us at any particular time."

**"Industrial Matters.**—The whole matter was referred to Mr. Justice Beattie, newly appointed to the Bench. He is comparatively young, and looks into matters himself. He issued an Interim Award re wages. Details have been published in the Bulletin, but there is more to follow. There is to be a review of the industry.

"The Proportion Clause will be discussed, and we will put our case in the strongest manner. Whether we will succeed or not I would not like to forecast. That is what faces us.

"Concerning the Poisons Act, the new regulations are not yet proclaimed. Mr. Pinerua is your official representative on the Poisons Advisory Committee. When the new regulations have been gazetted we will publish the whole of their requirements. It is in the hands of Mr. S. E. Wright. He will be ready with it as soon as the last checking is done, but we won't issue it until the new regulations have been gazetted.

"You will soon see the audited balance sheet recording receipts and disbursements from our Flood Relief Fund. The State Branch Committee underwrote all expenses. The recipients got all the monies collected. There was nothing taken out for expenses.

"I now formally move the adoption of the Annual Report, Balance Sheet and Accounts, and ask the Treasurer to second the motion."

Mr. Pinerua said: "In seconding the motion for adoption of the Annual Report, Balance Sheet and

## NEW SOUTH WALES—Continued

Accounts for the year ended June 30, 1955, it is appropriate for me to refer to our State finances.

"The Income and Expenditure Account for the 12 months ended 30th June, 1955, shows a surplus of £1388/9/7. This has been applied towards reduction of deficits experienced in previous years when the subscription was £5/5/- per annum.

"We have liquid assets totalling £4448/19/7, and if we include Treasury Bonds at £2856/5/-, the total quick assets are £7345/4/7.

"Our excess of assets over liabilities, as shown in the Balance Sheet, stands at £8526/14/11.

"Our pricing machinery and equipment have been kept up to date by the purchase of an automatic feed addressograph. This became necessary due to the increase in the number of subscribers.

"I have much pleasure in seconding the motion for adoption of the Annual Report, Balance Sheet and Accounts."

Mr. Smith said the motion was now open for discussion.

Mr. Segal (Woolliahra): "Last year, the year before and the year before that, I brought up the motion about the £4000 odd Federal Dues paid to the Federal Council.

"Can nothing be done about getting a report from the Federal body as to their financial position? Has anything been done about getting a Federal Balance Sheet?"

Mr. Smith: "I admit the truth of what you say. We, as delegates, get quarterly copies of the Federal Balance Sheet. The Federal Council makes the claim that it is confidential to it. You could pass a resolution to send a remit to the Federal Council, but it would not be dealt with until next year—'Circulate all accounts to all members in the Commonwealth.' The remit might not be carried."

Mr. Pinerua interpolated: "They said any member can see the balance sheet and accounts at the Federal Office in Melbourne."

Mr. Segal: "Could a resolution here alter the Constitution?"

Answer: "No."

Mr. Fraser: "I agree with the Federal Council's decision on the matter. Members of the Guild are responsible to the State Branch Committee for payment of their dues, and they expect an accounting of expenditure by the State, and they get that. The Federal Council is responsible to the State Branch Committee for accounting for the monies expended, but they are not required to publish details to all members."

Mr. Conolly suggested that the Federal Council be requested to make available details of the balance sheet and accounts at each State Branch Office, as well as at the Federal Office in Melbourne.

Mr. Segal moved accordingly, and the motion was carried unanimously.

Mr. Pritchard (Belmore): "The £10 sent to Federal Council for the merchandising fund, given some years ago. I have heard nothing further about it. What has happened to the money?"

Mr. Pinerua: "About two and a half years ago, you will remember a letter came from the Federal Council, asking you to turn the money over as a gift to utilise in the Guild Building."

Mr. Winterton: "What about those who did not agree to convert? What happened to their money?"

Mr. Pinerua: "We can find out what is done with the money not converted."

Mr. Fraser: "I would like to congratulate the State Branch Committee on a very good year's work. My only comment is regarding the surplus. I would like to bring to the notice of members the fact that a small payment is now made to the P.A.T.A. The discount has been increased from 12½ per cent. to 25 per cent.,

and £903/14/- was paid to the P.A.T.A. Members should know of the altered arrangements. If the P.A.T.A. should get into difficulties, it will make an approach to the Guild to restore the old rates.

"I congratulate the Committee on its good work. It is nice to see some new faces on the Committee."

Mr. Pinerua: "Regarding the subscriptions paid to the P.A.T.A., New South Wales is the only State in the Commonwealth which makes a voluntary payment of subscriptions to the P.A.T.A. For some time the P.A.T.A. has been non-functioning when compared with its past activities. The last P.A.T.A. balance sheet still showed a profit."

Mr. Fraser: "That has got nothing to do with it."

Mr. P. J. Byron, of Annandale: "I don't follow Mr. Fraser's remarks, '12½ per cent., 25 per cent. I don't follow it.'"

Mr. Pinerua explained that the Guild paid to the P.A.T.A. in respect of each Guild member the P.A.T.A. subscription of £1/1/- less 25 per cent. The Guild did the whole of the work of collecting, and paid over a lump sum to the P.A.T.A.

Mr. Smith: "We gave an undertaking that if the P.A.T.A. got into stormy weather we would come to the rescue."

Mr. Loxton (Cronulla) said members' subscriptions were shown at £12,584/3/7. Contributions to the Pricing Service were not shown in the accounts, Printing and Stationery stated at £358. There was also the matter of the "Gilseal News."

Mr. Conolly explained that the Pricing Service had shown a profit of £212. The figure for printing and stationery was ordinary printing and stationery. Nothing to do with the Bulletin. The "Gilseal News" paid for itself.

Mr. Segal asked what were the pricing complaints made.

Mr. Conolly explained.

Mr. Segal said that the Pricing Service was very good and would take some beating.

Mr. Pritchard (Belmore): "Despite this statement, Max Factors Longer Lasting Lipstick was not listed, although it had been out some time. Philishave Razors were not shown in the book, and very many items were not in the retail list. Over the counter lines appeared in the D.H.A. or Wholesale Drug Bulletins, but the Guild did not print them promptly. It was very dilatory in the matter."

Mr. Smith: "I am glad you have brought that up. We have resolved to correct the position. We are having a Guild trade dinner soon, and we will ask them about their apparent lack of co-operation in not supplying information for our price lists."

Mr. K. H. Powell (Rose Bay): "Regarding the H.C. Fund and the M.B. Fund, has the Committee made suggestions of simplifying the conditions? The half week over and the quarter week over is confusing."

Mr. Sapsford said: "I cannot answer. They are most parsimonious. With the H.C. Fund payment on the first of the month, it takes you to the first of the following month. It is from month to month."

Voices: That is wrong, wrong.

Mr. Sapsford: "In the Medical Fund it is marked to the same day in each month."

It was decided to investigate the point raised by Mr. Powell and to advise him of the result.

A member inquired, "Has anything been done regarding Guild members saying they will not accept less than four weeks' collection?"

Mr. Smith: "The idea is to get a greater minimum payment."

Mr. Thomas: "Since pricing has been brought up, it would be a good idea to mention one or two points. I draw attention to the fact that it is our own pricing service. If anybody has criticisms or suggestions, they should telephone them through to Mr. Coad. I pay a sincere tribute to the job being done by Mr. Coad. He has only one girl to assist him. Any assistance



## NEW SOUTH WALES—Continued

which can be given as to lines which are not in the list would be appreciated. Some lines are sold in one district and not in others, such as Newcastle. Some chemists in that area consider certain lines should be in the list. Then there are the border towns. They think that lines sold in Queensland and in Victoria should be included in the list. We are constantly endeavouring to make the list better and to give a better service to members.

"The P.P. List is published on a Commonwealth basis, and collection of information is done in Melbourne. At the Pricing Conference in Melbourne a 2/6 minimum fee was passed for ethicals. My negative vote was recorded."

The motion for adoption of the Annual Report, Balance Sheet and Accounts was put to the meeting and carried unanimously.

**Nominations, State Branch Committee.**—The Chairman announced the following nominations for election to the State Branch Committee:—Messrs. C. D. Bradford, R. W. Feller, R. Frew, R. S. Leece, O. C. V. Leggo and W. G. Sapsford.

As no greater number of candidates had been nominated than required to be elected, he had much pleasure in declaring the gentlemen named duly elected for the ensuing term. (Applause.)

**Election of Sub-Committees.**—Moved Mr. Segal, seconded Mr. Loxton, that the State Branch Committee be empowered to elect its own Sub-Committees. Carried.

**Auditors.**—It was resolved that Messrs. Holt and Thompson be reappointed as Auditors.

**President's Address.**—Mr. Smith said: "I would like to direct your attention to a few thoughts which I have put on paper."

Mr. Smith then delivered his address entitled "Dispensing Pharmaceutical Benefits and Pensioners' Medical Services Prescriptions Correctly." [Published elsewhere in this issue.—Ed.]

At the conclusion of his address, Mr. Smith said: "My remarks have been prompted by information received from the Federal Department of Health about the position pharmaceutically. It behoves us to look carefully to see if we are carrying out our obligations under the National Health Act."

**General Business.**—Mr. Smith then invited discussion under this heading.

Mr. Howard (Turrumurra) said he had come along to the meeting for one purpose only, but prior to bringing that up, he would like to congratulate the President and the Committeemen on the year's good work. In particular he would like to thank the Secretary for his help in an industrial matter—the payment of messenger boys. This had been mentioned in the annual report—the fact that messenger boys were awarded free.

Mr. Howard said his principal reason for coming along was to bring up the question "Where are we going as pharmacists?" We were losing our status as pharmacists by letting the butcher, the baker and the candlestick maker put in their money and set up pharmacies to get what they could out of it.

"Why do I raise this?" said Mr. Howard. "Well, I've been bitten. A pharmacy has been started in my locality by an estate agent, but there are many pharmacies owned by unregistered proprietors. Quite a number of unregistered proprietors are the first ones to have prosecutions launched against them. We have to thank you, Mr. Smith, for that fine homily on ethics. What I learned is that these people who open pharmacies are more susceptible. They have no standing or ethics, nor their managers either."

A voice interrupting: "They carry responsibilities."

Mr. Howard continued: "They are not considerably concerned with the ethics of their calling. There is doubt in the minds of the powers that be (that is,

the Guild), so they sit back and let it go. Can you imagine Pierpont Morgan buying up medical or dental practices? I've told you that I have opposition, but I am concerned mainly with the future generation. I came along to this meeting to make a protest about this state of affairs."

Mr. Segal: "I brought it up a couple of years ago. The meeting deplored ownership by non-pharmacists except representatives of deceased pharmacists, next-of-kin, carrying on. As regards running down managers, we should not point the bone at them."

"I refer to a resolution passed at last meeting about a contract for P.M.S. and P.B. work. There was going to be paid a dispensing fee plus the Guild rates for ingredients."

Mr. Smith: "Arrangements were made between the Federal Council and the Government."

Mr. Segal: "Has anything been done about the discount?"

Mr. Fraser explained to the meeting that the divisors were different, and this and other factors had the effect of lowering the rate for P.M.S. work.

Mr. Thomas said there had been misconceptions as far as the P.M.S. payment was concerned. With Guild work the basic price of drugs starts off with a higher wholesale cost.

Mr. Thomas explained the calculations concerning the P.M.S. drugs.

Mr. Smith inquired, "Is there any member who would like to speak regarding the matter brought up by Mr. Howard—unregistered ownerships?"

Mr. K. H. Powell: "At the P.A.A. Conference in Brisbane a remit supporting one man one shop was rejected."

Mr. Smith: "No. It was carried by one vote, but it has not been implemented in Victoria. In N.S.W. it is a matter of protecting us against unregistered persons."

Mr. O'Connell said it seemed we were a little timid about this matter. Timidity should not be shown. We had won previously on principles. Perhaps those principles had been forgotten. Should an unregistered man be permitted to dispense free medicine? The authorities should be awakened to the fact that registered pharmacists will be the ones who will have to "carry the baby" in the event of a mistake. The Government had no power to penalise the estate agent, for example. Unregistered persons had no legal status.

"In my own mind I am not clear that unregistered ownerships are not against the law."

Mr. Conolly explained the whole position.

It was decided to obtain legal opinion on the point whether unregistered persons could own pharmacies. Mr. Howard to be advised in due course when the legal opinion has been obtained.

Mr. O'Connell said: "Shouldn't we let it be known that people who take managerships for unregistered owners may prejudice their rights as to subsequent membership of the Guild?"

Mr. Winterton: "Could not the Industrial Commission fix the wages of managers as high as possible, so as to make it dear for unregistered owners to run their shops?"

A member said: "I would like to make a point. Mr. Howard has a 'down' on registered employees in general."

Voices: "No, no."

A member continued: "Registered employees working for an unregistered owner have to be doubly scrupulous. The registered manager has the Approval Number, and as far as extra loopholes in working for unregistered owners the answer is no."

Mr. Powell brought up the matter of the magazine, the "Family Circle." So far chemists had been inundated with mailing matter. Only on Saturday a pamphlet was received from the State Branch with the Guild Service Bulletin, but no indication was given as to the attitude of the State Branch Committee.



## NEW SOUTH WALES—Continued

Mr. Smith said that Mr. Pinerua had been appointed Liaison Officer on the magazine proposition. He asked Mr. Pinerua to explain.

Mr. Pinerua said the attitude of the State Branch had been one of waiting. The decision to introduce the magazine was a Federal decision. The State Branch was prepared to sit and see what the results were. It had been intended to send an advance copy of the "Family Circle" to every pharmacist in Australia in September, but due to the interest raised among other publishing concerns, it was decided it would be wiser to give the members the journal, 14 days before it was put on the market. Pharmacists would get it in the middle of October.

Mr. Thomas said the question had not been answered, "What is the State Branch Committee's opinion on the magazine?" Its opinion was not to endorse the magazine, and at the same time not to knock it."

Mr. Smith: "The State Branch Committee is divided. We can only finally resolve the matter when the first copy is available for examination. N.S.W. will not ballyhoo it, but we will not knock it."

Mr. O'Connell: "We sell it for no profit at all."

Mr. Leece: "Individual pharmacists will be up for something. Who is going to police the giving away of copies 'free of charge'?"

A member inquired: "Who are the advertisers? It was not until I had received four screeds that I realised that there was no profit on it. Who are the advertisers—chemist-only firms, only?"

Mr. Pinerua: "Chemist-only firms and nationally advertised lines also."

Mr. Loxton said the magazine had been discussed at Sutherland Meeting a few nights previously. There were ten present, and not one had placed an order for the magazine. What was worrying the Sutherland Shire Master Pharmacists' Association was would it be given away or would everyone charge 6d.?

"Our district has no rules," said Mr. Loxton. "Price cutting has been going on."

Mr. Winterton said: "It is something new in pharmacy. I am going to give it a flutter. I will give it a go."

Mr. Fraser said, regarding the advertising angle, it is more than an advertising matter. We could be acting to the detriment of chemist-only manufacturers.

Mr. Pinerua said that advertisements in the "Family Circle" would be vetted by the Guild. The Guild has the right of veto regarding advertisements.

A member inquired whether the details secured by the Bureau of Statistics would be published.

The Secretary said no.

The meeting terminated at 11 p.m.

### AUGUST MEETING OF S.B.C.

The State Branch Committee of the New South Wales Branch of the Guild met at Science House, 157 Gloucester street, Sydney, on August 11, at 8 p.m.

**Present.**—Messrs. L. W. Smith (Chairman), R. S. Leece, W. G. Sapsford, C. D. Bradford, P. Lipman, R. Frew and K. E. Thomas.

**Proposed Visit to Tamworth, October 9.**—Not yet settled. Inquiries to be made from the Tamworth Zone.

**Proposed Visit to Griffith, October 30; Proposed Visit to Parkes, November 27.**—It was decided to invite Mr. Jewkes and Mr. Kelleher to attend these two meetings, and further to write to the Director-General of Health, expressing the Guild's opinion of the great value of Mr. Jewkes' attendance at country meetings.

**Annual General Meeting, August 31, at Science House.**—The Secretary said that the Annual Report had been completed and had been sent to the President for perusal. The surplus for the year would amount to about £1300.

**State Branch Committee Office-Bearers.**—Nominations were received in respect of the following officers:—President, Vice-President, Treasurer and Federal Delegate.

The Secretary said that these would be dealt with in accordance with Rule 21.

**Poisons Advisory Committee Representative.**—Mr. G. R. Cameron, Under Secretary, Department of Health, wrote on July 15, advising that the Governor-in-Council had approved the appointment of Mr. W. F. Pinerua as a member of the Poisons Advisory Committee. A notification to this effect would be published in the Government Gazette of July 22.

(Memo: The notice appears in Government Gazette No. 70 at page 2006.)

**Federal Delegate's Report.**—The Federal President's letter of July 23 had been received.

**Boots' Statement of Policy, July, 1955.**—Reference was made to the letter distributed to all chemists by Boots'.

**Reports of Sub-Committees** were dealt with, as follows:—

(a) **Trade and Commerce, Planning and Publicity:**

**Federal Trade and Commerce Conference, August 22-23:** The Secretary said that all arrangements appeared to have been made for the conference.

**"Philishave":** The Secretary said that the two-headed model had been reduced in price by about £2 without warning. Philips Industries stated that wholesalers would be permitted to pass a credit for "Philishave" machines purchased between April and June. The wholesalers would need to make a Statutory Declaration certifying that the machines had been purchased within this period.

**Hillcastle's "Honey and Almond Cream":** The Secretary said that the pack and formula were to be changed, notwithstanding the fact that a recent selling campaign was instituted with a bonus offer to stimulate sales of the former pack.

(b) **Pricing:**

Report of meeting held on August 9 as circulated. Mr. Thomas dealt with items in the report seriatim and briefly commented upon them.

It was resolved to adopt the report of the Pricing Sub-Committee and to authorise Mr. Thomas to act as he thinks best at the Pricing Conference to be held on August 24 and 25 at Melbourne.

(c) **Repatriation, Lodge and Hospital Dispensing:**

The result of the plebiscite concerning the H.C. Fund and the M.B. Fund was recorded as follows:—

In favour of continuing agencies . . . . . 130

Against continuing agencies . . . . . 176

Mr. Smith said he was in the process of sending down to the Hospitals Commission details of hospitals where the dispensing is not carried out by a registered pharmacist.

(d) **Industrial and Early Closing:**

**Chemists (State) Award: Rates for Junior Employees:** On August 3 Mr. Justice Beattie confirmed the wage rates agreed upon by the Guild and the Union.

The matter of the Proportion Clause was deferred until after the Shop Assistants matter had been reviewed.

**Correspondence.**—Federal Secretary: (1) Advising that the annual meeting of Federal Council will be held in Melbourne from October 17 to 20. Remits should reach Federal Office by August 17. (2) Re State Branch By-laws, forwarding the Guild Solicitor's views on the N.S.W. State Branch By-laws. The revised copy of the by-laws to reach Federal Office prior to the Federal Council meeting.—To be discussed later.

**New Members Elected.**—Esmond Ross Brown, Peter James Byron, Gregory Sidney Cusick, Hector Destro, Hatfield and Tucker, Maxwell Barry Upton, William Kenneth Wilmot.

**Reinstatements.**—Miss Dulcie Haidee Brown, John David Henderson, Ellis Clive Rippon.

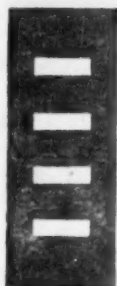
The meeting terminated at 11 p.m.

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of infections and infectious  
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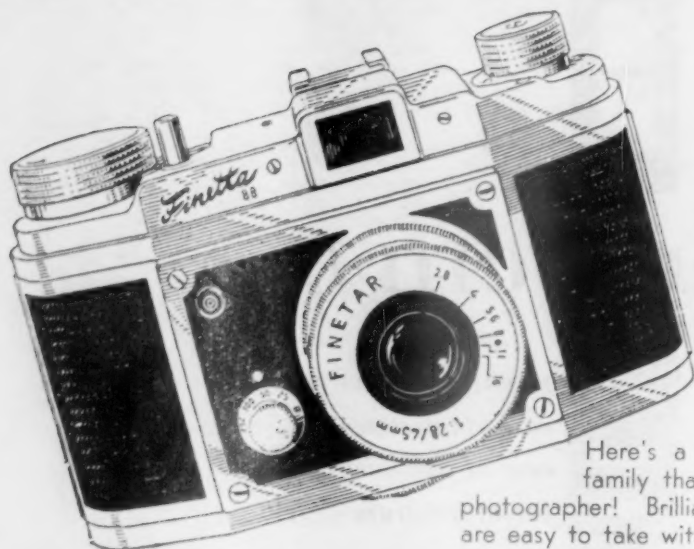
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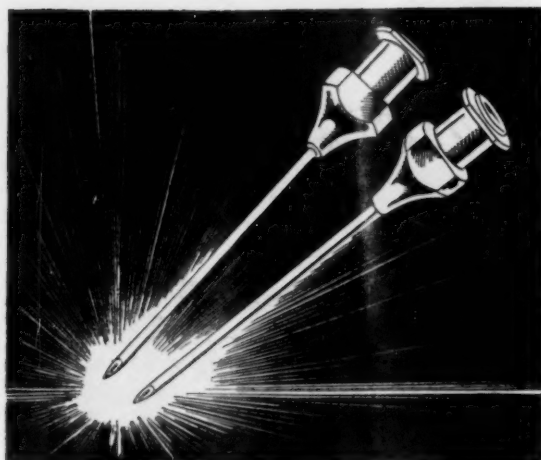
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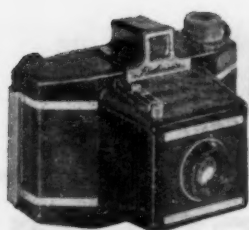
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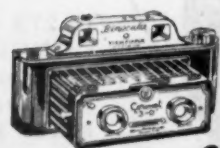
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A



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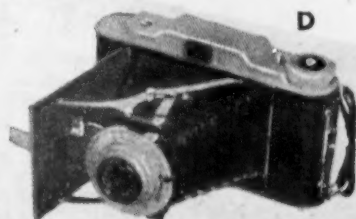
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$\frac{S}{2}$	Before dilution	3	0
	After dilution	3	0
$\frac{S}{4}$	Before dilution	3	1
	After dilution	2+	1+
$\frac{S}{8}$	Before dilution	3	2
	After dilution	3	2
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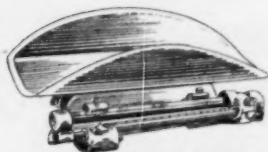


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